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Learning to read and write non-fiction in a junior primary classroom

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LEARNING TO READ AND WRITE NON-FICTION IN A JUNIOR PRIMARY CLASSROOM

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CERTIFICATION

I certify that the work for this thesis has not been submitted for a degree to any other university or institution.

Lynne May Badger

ACKNOWLEDGEMENTS

This research documents what a teacher, Sue Hoare, did in Shared Book Experience sessions and it documents what children learned as readers and writers of non-fiction. Without their co-operation, openness and enthusiasm, this research would not have been possible. I particularly want to acknowledge my debt of gratitude to Sue Hoare for her willingness to have me in her classroom and for the knowledge I have gained from working with her.

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NOTE TO THE READER

The following terms are used to describe the levels of schooling in South Australia.

Junior Primary school refers to the levels reception from entry, at age five, to year 2. There are separate Junior Primary schools. However, in many schools, the Junior Primary levels are subsumed into the Primary school.

Primary school refers to levels from reception to year seven. The site in which this research was carried out was a reception to year seven Primary school.

SUMMARY

Research Focus and Questions

This research focuses on what young children can learn about being non-fiction readers and writers from their participation in a program of Shared Book Sessions and activities. It is naturalistic in that it was carried out in the classroom setting and sought to describe and explore aspects of the teaching and learning which occurred.

The questions of theoretical interest which emerge from this research focus are:

1. Can Shared Reading Experience techniques be adapted to help young children (six year olds) learn how to read non-fiction texts?
2. If this is the case, how are children learning from this strategy?
   e.g. what are they learning?
   what can they do?
   what helps them?
3. Is it really possible to begin teaching children how to deal with non-fiction right from the beginning of their schooling?

Site, Duration and Informants

The research was carried out in a suburban primary school in South Australia. The research data was collected from April till June with a later collection period in August of the same year. The data were analysed and interpreted over a four year period.

The key informants in the study were the classroom teacher, six children who were the informants for the reading data and who, along with the rest of the class, contributed to the pool of writing from which examples were selected for analysis and interpretation.

The primary data were observations of the teacher during the Shared Book Sesions and observations of, and interviews with, the six research informants. These were recorded in a variety of ways through field notes, on audio and video tapes. Other data included interviews with the teacher, the teacher's program and the children's written products.

Findings

Five major findings emerged from this research:

1. The techniques of Shared Book Experience can be successfully adapted to teaching beginning readers how to read non-fiction materials.
2. The quality of the material children read has a major impact on their motivation to learn to read non-fiction and on the understandings they have about ways of constructing non-fiction texts.
3. There are no developmental barriers which preclude beginning readers learning how to read and write non-fiction. Six year old

children can and do learn how to handle the demands of non-fiction literacy when they are given appropriate instruction and materials to learn from.

4. Beginning readers can and do learn-to-read and read-to-learn simultaneously. There appears to be no definite sequence of acquisition of reading or of writing skills in the early years of schooling.

5. The understandings and strategies which young readers need to meet the particular challenges of non-fiction literacy do not grow from their competencies with narrative, but rather they need to be fostered and developed through appropriate instructional programs.

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CHAPTER 1: RATIONALE

During my six years (1981-1986) as an English Language Curriculum Writer and Advisor for the S.A. Education Department, I was involved in examining and evaluating reading materials which were submitted for inclusion on the S.A. Education Department's Primary Text Book List. This was a list of recommended resources which helped schools purchase materials which best supported the R-7 Language Arts curriculum guidelines. While helping to develop this list of recommendations over the years, I found that there were very few good non-fiction materials published for children in the junior primary level of schooling. Furthermore, through the ongoing analysis of, and debate about, the materials submitted by the publishers, it became evident that the meager resources available in the reading schemes and series intended for young children, were frequently not good quality non-fiction.

The most serious flaws detected in these materials (Comber & Badger 1987) were as follows:

Content: Many books either provided very little real information beyond the obvious such as giraffes have long necks, fish like to swim etc., or they presented inaccurate and misleading information such as penguins live in ice and snow. Very little use was made also of the kinds of visual devices

for depicting information and relationships such as charts, diagrams, tables, scale drawings, graphs etc.

Language and Tone: Many books avoided the use of the precise vocabulary associated with the subject matter. For instance, words like "hiders" were used in place of the specific term "camouflage". The tone was also often patronising and inappropriate e.g. birds like to fly.

Organisational features: Most of the usual organisational features of non-fiction books such as contents, index, headings, sub-headings, glossaries, page numbers were missing from virtually all the books analysed. In a few books, some of these conventions were used, for example they had an index, but no contents or headings or they used headings, but had no contents or index.

Text types: Rather than using the kinds of text-types found in the real world of non-fiction e.g. reports, scientific observations, instructions, encyclopaedias, informational texts, many of the books contained either a story about the topic or a hybrid text combining features of narrative and non-fiction which only exist in children's books.

These flaws with non-fiction books, and the dearth of materials available provided a major stumbling block in the provision of appropriate programs and resources for developing young children's competence as non-fiction readers and writers.

The obvious solution to this problem was to encourage publishers to begin to produce a greater number of books which had the appropriate qualities

of good non-fiction. Accordingly, a colleague, Barbara Comber, and I submitted a proposal to Methuen Publishers for a series of new non-fiction books for young children (five to eight year olds).

When this proposal was accepted, Barbara and I surveyed the interests of a range of junior primary children to ensure that these books were focused on what children wanted to know about. The data were provided for Steve Moline, the writer of the series, who developed the drafts and provided a "mock up" of each of the books, complete with full sized colour photographs etc., for trialling. Each of these texts was trialled by a group of six classroom teachers who used them in their classrooms. The teachers also encouraged the children to provide feed-back directly to Steve through letters in which they told what they liked, disliked, or wanted added to the books. Teachers analysed the texts themselves and provided their own feed-back. Barbara Comber and I also provided our feed-back, and collated and analysed all the feed-back from teachers and the children. We then made very clear and specific suggestions for what needed to be changed. One outcome of this process was a set of six non-fiction books in both enlarged and small form which were then publicly available for teachers to purchase and to use in their classrooms. This set of books was called the Informazing Series and consisted of the following six titles:

- Tadpole Diary
- Caterpillar Diary
- The Life of the Butterfly
- The Book of Animal Records
- Mystery Monsters

. Animal Clues

The second outcome took the form of the documentation of the kinds of strategies (Comber & Badger 1987, Badger & Comber 1987) which the trialling teachers had used to explore the potential of these books for developing children's understanding about the topics and their competence as users of these kinds of texts. When the teachers were given the books to trial, they decided how best to use them in their classrooms. They were not given any advice, suggestions or constraints about how to do this. However, because the books were in an enlarged format, there was an implicit expectation that they would use some of the techniques associated with the practice of Shared Book Experience (Holdaway 1979) which all the teachers used as part of their usual program for teaching children to read fiction.

Shared Book Experience involves teachers using enlarged texts with groups of children to demonstrate the reading process in action. It is a very effective form of scaffolding (Cazden 1983) in which the teacher supports the children to learn to read by mediating their interaction with the book. Through their collaboration with the teacher and with each other, children are able to participate in reading the text accurately and to experience how readers use information from the cueing systems to predict, check, confirm and/or self-correct in order to reconstruct the author's message. Although there was no research available to support the claim that this technique would be useful also for teaching non-fiction, the assumption was made that children would need the same kind of support to learn how to operate with non-fiction books. The documentation and analysis of the teacher's

strategies and practices (Badger & Comber 1987) revealed that this assumption could be substantiated.

Given that teachers had good non-fiction materials available to them and some techniques for using the books, the questions then arose as to what young children could learn from their experiences with the books. My previous research had provided some insights into this question but the data were really only suggestive of the possibilities. It was apparent then that the profession needed to know more about the impact of these resources and teaching practices on children. My research therefore focuses on what young children can learn, about being non-fiction users, from their participation in a program of Shared Book Sessions and activities. The questions of theoretical interest which emerge from this focus are as follows:

> Can Shared Book Experience techniques be adapted so that they can help young children to learn how to read non-fiction texts?
>
> If this is the case (as Badger & Comber's research work suggests), how are children learning from this teaching strategy?
>
> e.g. What are they learning?
>
> What helps them?
>
> What can they do?
>
> Is it possible to begin teaching children how to deal with non-fiction from the beginning of their schooling?

These are all important questions to pursue because of the potential not only to extend theoretical understandings about children's early literacy development in terms of what they can learn, but also provide insights into how a particular teaching practice can support and nurture the children's learning. Furthermore, the question of when this kind of learning and teaching should be introduced through the classroom program is one which can have a profound impact on the opportunities children have to develop their competencies as powerful readers, writers and thinkers in the world of non-fiction.

CHAPTER 2: REVIEW OF LITERATURE

The teaching of non-fiction reading and writing to children in their early years of schooling is a current challenge for teachers and researchers in the field of literacy education. Although this area is still in its infancy, there is a theoretical and practical literature emerging which highlights the issues and which documents the classroom strategies which are being developed to teach non-fiction reading and writing in junior primary classes.

The area of non-fiction in early literacy curriculum is not without a tension brought about by differing viewpoints of researchers, writers and teachers.

In the first part of this review, the debates about non-fiction in early literacy instruction are discussed. Attention is then focused on some findings from classrooms which reveal that there is a lack of instruction in non-fiction and exposure to good quality non-fiction material in the early years of schooling. The consequences of this lack of instruction and exposure to material are detailed. The arguments for teaching non-fiction are also outlined. Finally, the literature on recent developments in teaching non-fiction in junior primary classrooms is reviewed to establish the kinds of literacy practices which are being used to foster and support young children's development as non-fiction literacy users.

2.1 DEBATES ABOUT NON-FICTION IN EARLY LITERACY INSTRUCTION

The literature reveals two issues which are highly contentious and which influence how early literacy instruction is conceptualised. These issues relate to the role of narrative in the early literacy curriculum and the sequence of acquisition of early literacy skills in particular, reading skills.

One set of views (Wells 1986, Britton et al 1975, Carlin 1986, King & Rental 1986, Moffet 1968) about the role of narrative, suggests that narrative is central to all learning. Furthermore, it is claimed that narrative is more developmentally appropriate for early literacy instruction; it is a more natural discourse for children and easier for them to handle.

A different set of views about the role of narrative (Christie 1987, 1988, Poynton 1986, Rothery 1986, Cambourne & Brown 1987, Newkirk 1985), can be found which suggests that children's apparent preference for narrative is in fact a function of the curriculum provided in the early years of schooling.

The Role of Narrative

Wells (1986) argues that stories are the form which most children will find "easiest and most meaningful" to learn to read and write. He suggests also that young children find it "easier to assimilate new ideas when they are presented within the framework of a story". Stories, Wells argues, are a major route to understanding as they are the most powerful way children have of understanding, enlarging on and grappling with experience. They therefore, provide the most enriching contexts for the development of spoken and written language. Wells also presents evidence that the

experience of listening to stories is considered one of the most helpful preparations for literacy learning.

Wells not only believes that children have a natural impulse to tell and write stories but he also believes that teaching and learning through narrative is developmentally appropriate. Wells explains this view of children's development.

> "Only gradually do they learn to move from the narrative mode of expression to an expository or argumentative one" (1986 p.205).

Moffet (1968) also makes a strong case for a developmental sequence when he suggests that young children must make "narrative do for all" because they have difficulty with high level thinking. He says:

> "Whereas adults differentiate their thoughts into specialised kinds of discourse such as narrative, generalization and theory, children must for a long time make narrative do for all. They utter themselves almost entirely through stories - real or invented - and they apprehend what others say through story. The young learner, that is, does not talk and read explicitly about categories and theories of experience. He (sic) talks and reads about characters, events and settings" (p.49)

Other writers support the idea view that narrative is easier than other discourse forms. Carlin (1986) concludes that the seven year olds in his study preferred writing stories because "they are easier to write and provide intrinsic rewards for the writer" (p. 192). His analysis of samples of children's writing led him to believe that even the youngest writers were dominated by a strong sense of narrative and that "the time sequence which governs their own lives manifests itself quite naturally in the chronological order of their own writing" (1986 p.186).

Like Carlin, Graves (1984) also suggests that young children's strong sense of the chronology of their own lives influences what they write. He argues that personal narrative is the easiest for young children to write, followed by fantasy or fiction. Graves also explains that writing in the content areas is more difficult than narrative because the information must be ordered logically rather than chronologically. King and Rental (1986) also suggest that children will be more likely to produce texts in narrative rather than other discourse genres.

However, a quite different view of the role of narrative in children's early literacy development can be argued. For instance, Christie (1987) argues that her studies reveal that children have no necessary disposition for narrative or other forms, but that children write what they are enabled to write. There is, Christie (1988) explains, a marked relationship between the "generic patterns children learn to write and generic models their teachers make available to them" (p.126). Children's instruction largely enables them to write narrative. She also argues that narratives are only one possible set of genres and that educational programs should introduce children to other forms from their earliest years of schooling. Poynton (1986) agrees with this view and suggests that procedural texts in particular, could be produced by children from their first day of school.

Cambourne and Brown (1987) believe that children acquire whatever text forms teachers value and the evidence suggests that children are most frequently exposed to narratives. (Rothery 1984, Hammond 1986, Bartlett 1985. Poynton 1986)

Newkirk (1985) argues that if children have access to non-narrative forms they will appropriate them as they do other forms of adult behaviour. Rothery (1984) points to the values which shape the curriculum offered to young children.

> "The fact that the primary school does not value expository writing as highly as narrative means it does not receive the same attention in the curriculum" (p.113).

In spite of this imbalance in the curriculum in favour of narrative Rothery (1984) concludes, from her research, that children in year one and two preferred writing non-fiction forms, such as reports, to writing narrative.

Callagan & Rothery (1988) dispute the view that non-fiction is too difficult for young primary school children. Such a view claims that:

> "Because this age group was seen to be in the concrete stage of cognitive development according to Piagetian standards, certain kinds of reading and writing, in particular those that were factual and argumentative were considered beyond the capacity of children to learn" (1988 p.11).

The idea that narratives are more developmentally appropriate is disputed by many writers. Rothery (1984), Poynton (1988) and Christie (1988) for example argue that factual writing is not too cognitively demanding for young children.

Poynton (1986) points to a limitation of the view that factually oriented writing is too cognitively demanding for young children when she says that it "fails to take into account the lively interest that even pre-school children ... have in factual as well as narrative talk and writing" (p.144).

Christie (1988) puts the argument most succinctly:

> "It is sometimes suggested ... that expository texts are more difficult than narrative texts. Some even suggest that the construction of exposition is a mentally more demanding activity than that of constructing narrative texts and for that reason, the teaching of it should be delayed until children have entered the grades older than those of the infant school. There is, however, we would argue, no real reason to believe this is so, for young children can write exposition very early, and in some cases, they appear to prefer to do so rather than write narratives. Where people claim to have evidence that young children write narratives more convincingly than expositions, the probable explanation is that the narrative genre has been made more accessible to them, principally through the many children's stories read to them" (p.132).

Studies of pre-schoolers (Harste, Woodward & Burke 1983, Taylor 1983, Bissex 1980, Newkirk 1985) have revealed that children use both narrative and non-fiction. In her review of the research on early literacy in home settings, Campagna (1989) found that the studies clearly demonstrated that young children "use writing not just to narrate events, but also to present information and, occasionally, to argue their point of view and to persuade others to do their wishes" (p.11).

Collerson (1984) in his study of his young daughter's out-of-school writing found that she produced fourty-one pieces of expository writing before she was six years old. In fact, he suggests that Julie preferred expository writing as within it she "seemed to have discovered something inherently rewarding" (p.49).

Bissex (1980) also found that many of the early forms her son used such as signs, notes, labels, directions, shopping lists were to inform, label and control. She states that he wrote in a variety of forms and for a number of different purposes but that his writing was predominantly informational.

Langer (1986) concedes that the possibility that children's unfamiliarity with complex rhetorical forms may be partially due to developmental phenomena. However, she is prepared to consider that it is also "possible that lack of exposure to more complex expository forms during the early years deprives the children of useful models and thereby creates an impediment to learning" (p.137).

Sequence of Acquisition

The debate about the role of narrative in early literacy curriculum has highlighted issues about sequences of development. One view poses a clear developmental sequence which begins with narrative and progresses to other non-fiction forms. The other view argues against any such development on the basis that young children, including pre-schoolers can use both narrative and non-fiction forms.

However, there is another related, but different set of arguments about sequences in the acquisition of early literacy skills. At the heart of this set of arguments lies a debate about the nature of reading and writing and how competence in both is developed.

One set of views is based on the proposition that there are clearly defined stages in children's reading development; specifically that children must learn-to-read before they can read-to-learn (Chall 1983, Singer & Donlan 1980). The other set of views argues that learning how to read and learning from reading happen simultaneously and do not depend on fixed hierarchical stages (Christie 1986, Harste, Woodward & Burke 1984, Newkirk 1985).

Chall (1983) provides a detailed and cogent view of stage-theory of reading and the sequence of acquisition within it. She proposes a five stage model of reading development which relates to age levels and grades. It is only the first three stages which are relevant to this review, since it is at the third stage that Chall asserts that children are developmentally ready to begin to read to learn.

These three stages are:

Stage 1:	Initial Reading or Decoding Stage
	Grades 1 - 2. Ages 6 - 7
Stage 2:	Confirmation, Fluency, Unglueing from Print
	Grades 2 - 3. Ages 7 - 8
Stage 3:	Reading for Learning the New: A First Step
	Phase A: Grades 4 - 6. Ages 9 - 11
	Phase B: Grades 7 - 8. Ages 12 - 14

Chall provides a brief overview of the focus of each stage and the transition from one to another.

> "Only when the fundamental decoding skills are mastered (Stage 1) and fluency has become habitual (Stage 2) can reading become useful as a tool for learning, even when the new information is relatively straight-forward and unencumbered by a variety of viewpoints and subtleties" (p.26).

> "While the learner is in the decoding stage (Stage 2) and confirming (Stage 2) stages, the task is to master the print; with Stage 3 the task becomes the mastery of ideas" (p.21).

There is, as Chall points out, a resemblance between the reading stages and stages of cognitive development such as those of Piaget. She says:

> "Like Piaget's cognitive stages, for example, reading stages have a definitive structure and differ from one another in characteristic qualitative ways, generally following a hierarchical progression" (p.11).

Thus reading is different at different stages and each new stage subsumes the previous one.

She also explains the "fit" between what traditionally happens in schools and her reading stages.

> "... in traditional schools 4th Grade (age 9) was time for starting the study of subject areas .... Even though maths and language arts were included in the first three grades ... the content subjects were not included until children has mastered enough of the literacy skills to deal with the books to teach them about times and places and ideas removed from their direct experience" (p.21).

She concludes that Stage 3 fits traditional notions of the difference between early and later schooling. In the primary grades, the task is for children to learn-to-read while the higher grades are the time for them to read-to-learn.

While Singer & Donlan (1980) also argue the acquisition of the basic skills of reading precedes the use of reading as a tool for learning, they do concede that these stages overlap. Wray (1988) reports that teachers of young children have been more concerned to teach the "basic skills" of reading than with helping them to develop skills of locating information and learning from texts. Christie (1986) highlights this concern for basics in the literature on learning to write. She is critical of the prevalence of writing practices which require children to master letter shapes and the conventions of spelling and handwriting and which therefore delay children's attempts to create their own texts.

Models of reading and writing development which are predicated on a hierarchy of skill development provide an effective rationale for delaying instruction on how to read-to-learn and write to learn until children have mastered the "basics".

A different view of the acquisition of literacy rests not upon learning a "set of abstract isolated skills" (Teale & Sulzby 1989) but on functional experiences with literacy (Yetta Goodman 1984, 1985, 1986; Holdaway 1979, Langer 1986, Teal & Sulzby 1989, Bussis et al 1985, Harste, Woodward & Burke 1984, Cambourne 1988). Within these functional experiences, it is argued that learners build from the whole to the parts (Ken Goodman & Yetta Goodman 1979). Yetta Goodman (1986) suggests that functional writing experiences foster children's development rather than "biological stages or critical moments in learning" (p.10). In other words children's literacy development is influenced more by their experience of using reading and writing for real purposes than by their age or stage of cognitive or physical development.

Not only is the learning of isolated literacy skills unnecessary it is argued, but so is learning to read before reading-to-learn. The most compelling and widespread evidence against this view is the simple fact, mentioned earlier, that both pre-school and school age children read and write both narratives and non-fiction forms. (Harste 1990, Harste, Woodward & Burke 1984, Newkirk 1985 & 1987, Sulzby, Teal & Kamberelis 1989, Bissex 1980, Taylor 1983, Campagna 1989, Christie 1986, 1987, 1988; Collerson 1984, Rothery 1984, Poynton 1986)

Whysall (1987) is convinced that "teachers should begin a program of informational skill tuition at the very point where teaching itself is first getting started" (p.175), rather than waiting until the later years of school.

2.2 FINDINGS FROM CLASSROOMS

The major relevant finding from a number of studies of junior primary classrooms is that there is a lack of instruction in reading and writing non-fiction as well as a lack of appropriate non-fiction texts.

Lack of Instruction

The studies of Christie (1987) and Comber & Badger (1987) revealed that it is rare for young children to experience instruction in non-fiction. This finding is corroborated by Morris (1989) and Singer & Donlan (1980) who assert that teachers often expect children to use textbooks rather than to teach them how to learn from reading. Painter (1986) also comments on the fact that teachers do not intervene and teach children but rather expect them to use a variety of written genres or simply leave them "free" to do so. Even when children in the early years do receive some kind of instruction in using non-fiction texts it is ad-hoc rather than systematic (Whysall 1987).

Morris and Stewart-Dore (1984) found that the pre-occupation with teaching narrative means that "... rarely is a functional outlook adopted which consciously aims at helping students use textbooks, journals, articles and other expository materials, in order to gain knowledge, solve a problem or complete a task" (p.18).

The lack of consistent and systematic instruction may in part, be due to the absence of support to enable teachers to provide programs of non-

fiction literacy instruction. There are a number of ways in which the absence of support, for teachers, manifests itself. Firstly, there is a lack of curriculum guidelines, for junior primary teachers, about reading-to-learn (Moore, Readence & Rickleman 1983). Secondly, there is a dearth of reading education textbooks devoted to teaching content area reading to junior primary students (Moore, Readence & Rickleman 1983). Thirdly, there is the absence of any real preparation in teacher education programs to help teachers to "know and apply instructional strategies designed to foster student's development in reading and learning from texts (Singer & Donlan 1980).

Lack of Appropriate Texts

A major criticism of the basal readers which deal with non-fiction topics is the lack of organisational features such as headings and sub-headings which characterise conceptual and relational content (Piccolo 1987). Badger & Comber (1987) also make this point but raise further concerns about the lack of accurate and engaging content and an apparent reluctance to use the text type, vocabulary and language structures which are appropriate to the topic. They claim that publishers' attempts to simplify texts for young children result in patronising, stylistically inappropriate and inaccurate texts. Christie (1987) claims too that textbooks and reference books, provided for primary children to read and learn from are extremely poor quality.

The work of Moore, Readence & Rickleman (1983) confirms the fact that since the early 1900's, school reading materials have predominantly been narrative. Morris & Stewart-Dore (1984) make the same point:

> "Traditional reading schemes are composed almost exclusively of story reading with very little factual reading reading-to-learn or reading-to-do-experience" (p.18)

Consequences

The consequences of the lack of appropriate texts and the lack of non-fiction instruction in early literacy programs, have been documented by a number of researchers.

It seems that students are often left to learn how to read and write to learn for themselves. For example, Morris (1989) claims that:

> "At present if students do not intuitively learn how to access print information for themselves, they are unlikely to be taught how to do so and will therefore find it very difficult to become independent learners" (p.314).

Some children, according to Rothery (1984) can, of their own accord, learn written genres through their language experiences. These children, she asserts, can match the appropriate genre to the tasks given in the classroom. However, she presents a different outcome for other children:

> "Others, however, are left in the dark. They do not succeed with the genre asked for and are not told what is wrong and are not given the opportunity to learn the genre."

As a consequence, Rothery (1984) sees that young children's development in writing genres is haphazard and problematic.

There is evidence too, from Martin (1985) that suggests only the better students learn about ways of structuring texts from their reading of factual texts. Others it seems, need specific instruction.

Perhaps one of the most far-reaching consequences of the lack of texts in particular, is that children are exposed to very few models of good quality non-fiction texts. Children are not, Christie (1987) claims, exposed to non-narrative forms with anything like the frequency they are exposed to narratives. The restricted access which students have to models for writing non-fiction texts means that students are expected to write "without ... ever having been exposed before to what is expected" (Martin 1986). Other studies by Poynton (1986), Langer (1986), Parker & Davis (1983), Bartlett (1985), Gray (1986) and Hammond (1986) also point to children's lack of exposure to effective models of non-fiction texts.

One outcome of such lack of exposure to models is that "children have no useful models of informational of persuasive writing to draw on" (Parker & Davis 1983 p.86). Another related outcome suggested by Piccolo (1987) is that few students possess schemas for expository texts. It seems that teachers and students rarely sit down, as a group, and look at how information giving texts are organised (Morris & Stewart-Dore 1984).

Martin (1985) claims that students do very little factual writing in the primary grades. He reports on a study, carried out with Rothery in which 1500 samples of writing were collected from years one to six. The analysis of these samples revealed 1272 pieces of writing were of the narrative, expressive kind. However, even when children do factual writing it is restricted to a few genres such as reports and recounts. (Martin 1985, 1986; Christie 1987)

The overall consequence of lack of materials and instruction in non-fiction literacies is, according to Christie (1987), that schools keep children ignorant of factual genres.

2.3 ARGUMENTS FOR THE EARLY TEACHING OF NON-FICTION

Many writers have recently begun to advocate that non-fiction literacy needs to be taught, particularly in the early years of schooling. Morris (1989), Christie (1987) and Rothery (1984) state firmly that children must be taught to handle different genres and make use of print resources to gain information. Christie (1987) makes the strongest statement of the case when she says, "What children are not taught they will not do". A number of differences between non-fiction and fiction emerge from the literature. These differences relate to purposes, behaviours and to text qualities.

Different Purposes

One of the major differences highlighted by Martin (1985) is that factual and narrative texts are different because they serve different purposes in our culture. Morris (1985) also alludes to purposes but in relation to reading.

> "It is not sufficient to teach children how to read stories as these ignore not only other purposes for reading but other styles of reading material." (p.157)

Genres such as story and report represent different uses which Langer (1986) believes lead in turn "to different ways of organising and presenting a text and perhaps to different patterns of development and mastery" (p.4).

Non-fiction genres such as exposition and different genres such as narrative, according to Christie (1986) deal with experience in quite fundamentally different ways. They have different purposes. Christie asserts that "exposition deals with the construction of factual propositions rather than reconstructions of experience" (p.130).

Different Behaviours

The research undertaken by Langer (1986) provides, she says, "strong evidence that the desire to convey information invokes the use of cognitive, procedural and linguistic behaviours that are qualitatively different from those invoked in response to the desire to convey an imaginative story" (p.118). That is, the different purposes and functions for which these text forms are used require readers and writers to respond differently and to draw on different processes and knowledge.

Similarly, Harste (1990) states that readers use strategies, when reading and interpreting a poem, that are different from those used for a content area selection. Children, he says must learn to "vary their cognitive processes by content and context" (p.318) if they are to be strategic readers. Morris (1987) recognises this concept when he states "... teaching children how to read novels, plays and poems does not prepare students to read different kinds of materials in other subject area" (p. 1).

Donaldson (1983) also believes children need to learn how to deal with the cognitive and linguistic demands of forms, other than narrative.

> "If all the prose children learn to write is narrative and description, then they are being deprived. They need to learn ... how to participate in the impersonal modes of thinking and linguistic expression that are such an important part of our cultural heritage" (p.25).

In their exploration of the history of content area reading, which embodies reading-to-learn, Moore, Readence, & Rickleman (1983) argue it was necessary to introduce content area reading instruction because children needed help to acquire the various strategies to study particular subject areas and to read many kinds of material for different purposes. Behaviours such as locating, comprehending, remembering and retrieving information are required for reading to learn (Moore, Readence & Rickleman 1983).

Underpinning the need to teach different behaviours for dealing with fiction and non-fiction literacy is the premise that "literacy is neither a single, monolithic skill nor a glorified state which one enters" (Harste 1983 p.32). In other words, children need to learn that literacy is a multi-faceted phenomena.

The central argument here is that children's ability to read and write non-fiction does not grow out of their ability to handle narrative or other forms of fiction (Morris 1985, Hammond 1986, Bartlett 1985, Marland 1982, Hoogstaad 1985, Newkirk 1985, Rothery 1984, Mikulecky 1990).

Different Text Qualities

Non-fiction texts usually differ from fiction in terms of the information that is presented; the ways in which the information is structured; the organisation of the text and the relationships between the print and visual devices such as photographs, drawings, charts, maps, tables etc. (Comber & Badger 1987). Morris & Stewart-Dore (1984) also suggest a similar range such as the concepts and facts presented in the text, the style of

language and argument adopted by the author and the range of illustrations provided to support the text.

The information in non-fiction materials is frequently structured in different ways from fiction. According to Dreher & Singer (1989) the common ways of structuring information in text-books are cause/effect; problem/solution; comparison/contrast; listing and chronology. The ways in which the information is structured differ from fiction in that they introduce children to the manner in which a "discipline displays its characteristic ways of analysing, describing, classifying and extracting from its particular experiential world" (Freebody 1989 p.330). Through their interaction with texts, children start "the processes of learning the 'uncommonsense knowledge' of schooling" (Christie 1988 p.96).

In addition to coming to terms with the particular ways in which non-fiction texts are structured children have to learn about organisational features such as contents, indexes, headings, sub-headings, page numbers, glossaries (Dreher & Singer 1989, Comber & Badger 1987).

Young readers of non-fiction also have to come to terms with the particular language forms which writers use (Morris & Stewart-Dore 1984, Moore, Readence, & Rickleman 1983, Cambourne & Brown 1987, Cambourne 1988). Rothery (1984) maintains that factual genres such as exposition make markedly different language demands than does narrative.

If children are to gain increasing mastery as readers, Donaldson (1983) believes they must learn the language of systematic thought and the ways in which words can be used to achieve logical clarity and sustained

arguments. Unsworth (1985) also highlights the importance of language when he suggests that non-fiction texts present problems that are as much linguistic and conceptual.

Finally, non-fiction texts include a range and variety of illustrative material which have a different relationship to the text than the illustrations found in fiction. The presence of diagrams, charts, tables, maps etc., require a different kind of reading (Morris (185). Young readers and writers need to be able to recognise and interpret the "non-print" ways in which information and the relationships between items of information are depicted (Pellegrini 1988).

Outcomes for Children

Acquiring understandings about the features of non-fiction texts and how they are used, potentially enables children to obtain certain kinds of benefits or outcomes. Firstly, Morris & Stewart-Dore (1984) believe that in acquiring skills of reading to learn they gain a tool which they can use to access the information they need and want to know. Secondly, the control children gain over a range of non-fiction forms and functions enables them to "challenge the world" in which they live (Martin 1985). Cambourne & Brown (1987) also posit a relationship between learning the language forms which the culture values and gaining control over one's life. They also assert that control over a wide range of discourse forms equips children to think in certain ways. Cambourne (1988) extends this argument further when he suggests that a familiarity with a wide range of text forms leads to a high degree of control over language. He contends that "increased language control leads to intellectual, social and economic empowerment" (p.201). However, Luke (1990) cautions that literacy only leads to the ability to use higher-order intellectual processes and to

emancipation if these processes and ideals are part of the ways in which literacy is taught. Thirdly, children's engagement with different disciplines and discourse forms affords children entry into the ways in which reality is shaped and organised (Donaldson 1983, Derewianka 1989). Donaldson (1983) argues that it is essential for children to "learn the impersonal modes of thinking and linguistic expression that are such an important part of our cultural heritage". Informational texts Paice (1985) suggests help children to organise their view of the world.

Fourthly, Hammond (1986) argues that control over a variety of written genres will assist children to succeed academically. She argues that the ability to read and write non-fiction texts is a major requirement for success at school.

2.4 SOME RECENT PEDAGOGICAL DEVELOPMENTS

Teachers and researchers in Australia in particular, are currently developing pedagogicial strategies designed to help young children to learn how non-fiction texts work. There are now a small number of studies emerging in the literature which reveal the strategies which junior primary teachers are using to support children's early development as non-fiction readers and writers.

In this section only studies which relate to junior primary classrooms are reviewed to gain some insights into the ways teachers are working with beginning readers and writers to help them to deal with non-fiction texts. A number of the studies reviewed are actually classroom teacher's accounts of their action research projects (Hastwell 1987, 1988, K Smith,

F Smith 1989, O'Brien 1988, Webster 1990, O'Malley 1989, Moore 1988).

The strategies for teaching writing will be discussed first. These will be followed by a discussion of the approaches to teaching reading.

Writing Strategies

Some studies describe strategies which are clearly based on a genre approach to teaching writing. These usually describe a collection of strategies which make up a "Curriculum Genre" (Callagan & Rothery 1988).

A Genre Approach

The teaching strategies used in this approach are divided into three major phases which make up the teaching cycle. The most straight-forward description of this approach comes from Callagan & Rothery (1988). This description will be used as the framework within which the classroom studies will be described and discussed.

The three phases are:

Phase One:	Modelling of text in context
Phase Two:	Joint-Negotiation of a new text
Phase Three:	Independent Construction of a text

In Phase One: Modelling there are quite specific intentions. These are described by Callagan & Rothery as:

- setting an immediate context for learning about a particular genre

- investigating the social and learning function of the particular genre under focus
- exploring the language (text) relevant to this context via question and answer modelling of the language appropriate to that situation

Within these overall intentions Callaghan & Rothery explain that the focus is on:

- the social function of the genre (what it is used for)
- the schematic structure of the genre (how it is organised)
- particular aspects of the register relevant to the genre and to extending children's writing in that genre

The Second Phase: Joint Negotiation of the text has two distinct stages. Firstly there is the preparation for joint writing of a text in the genre and secondly, the actual co-writing of a new text

Finally, Phase Three: Independent Construction of a new text, has five identifiable stages. These are:

Stage 1 The preparation for independent construction of text

Stage 2 The drafting of individual pieces

Stage 3 Consultation and conferencing with teacher and peers

Stage 4 Critical evaluation including editing and publishing

Stage 5 Creative exploitation of the genre

Evidence of most aspects of the Curriculum Genre at work in the classroom is found in Gray (1987) where he describes the approaches used in a language project at Traeger Park School in Alice Springs. Gray

worked with Julia Price, who was a research teacher in the school, to develop an approach which used "socially-constructed learning as a means through which children could gain control of both written English texts and the teacher/child negotiated texts required to construct those written texts in school (i.e. control of 'decontextualised language use')" (p.26). They worked with children in kindergarten through to grade four.

The approach they adopted was to explore a text over a sequence or cycle of lessons where they worked on sharing the meaning of text with the children. Typically, this involved the teacher and the children doing an activity together such as baking bread or pasta or hatching chickens, which would "provide the basis from which a particular kind of text ... could be negotiated" (p.27). Gray points out that the outcome of the sharing sessions was always the joint-construction of a text or texts which the teachers had clearly defined before-hand. Usually the text jointly constructed and negotiated, was verbal but as children gained control of oral production, they moved on to the joint-construction of written text. The time frame for their work on topics was from a minimum of six weeks to twelve weeks or longer. Painter (1986) believes that writing which is the end product of such a "series of carefully planned interactions between teachers and students ... will be more successful than texts produced on the basis of practising word and sentence formation out of context, as in the traditional classroom, or texts produced by the inexperienced child left to his or her own devices" (p.94).

Three support strategies, scaffolding, modelling and direct instruction were employed in an integrated way in the lessons. Gray highlights what he sees as the two salient features of scaffolding, that is, the teacher

provides emulative models as she enters into joint construction of the text with children; the teacher withdraws support as the children gain control of the task. Gray reports that modelling was seen as "the central focus" of their teaching, as they deliberately set out to provide "models and language use in context which, through scaffolding procedures" they then "encouraged the children to take over as their own" (p.38). A typical example of modelling is described by Gray in relation to work on the topic of "bees".

> It would arise, perhaps, as a sharing session with the teacher in which the teacher provided information, usually from exploration and discussion of suitable pictures and factual texts. This exploration would occur over a number of lessons as preparation for either the visit of a local apiarist with hives, displays of honey to the school or a visit by the class to his work-place or both. The teacher would seek out videos and films on bees and with the children, would view and discuss the segments which dealt with the social roles of various kinds of bees. Illustrations; photographs; teacher preparation or children's illustrations would be produced. Discussion and writing activities centred around those would provide further opportunities for concerted modelling of texts to structure knowledge as well as situations in which children could attempt to reconstruct those models" (p.39).

The third strategy, direct instruction, was not according to Gray, the skills oriented/mastery learning approach. Rather his interpretation "lies in making explicit for the learner the cultural differences which affect language use" (p.40). There seem to be two aspects about the cultural use of language which Gray believes need to be made explicit. These are the purpose behind various kinds of language use and knowledge related to the provision of information about the organisation of written genres.

Gray points to some of the achievements of their work with children in the Treagar Park project:

> "we were able to lead children towards control of suitable texts" (p.37)

> "we were able to start building the children's oral control over the question focus and explicit topic centred learning negotiation that is so important for success in literacy - oriented schooling" (p.37)
> "we learned to call texts by specific generic names and found the children readily accepted these" (p.41)
> "... very young children could easily distinguish between a re-count and a procedure" (p.41)

In an earlier paper, Gray (1986) summarised five of his research studies of Treager Park and developed the following insights into aspects of the teacher's role.

> "... the context in which text models are presented are crucial. Teachers must structure their language input appropriately and must learn to frame eliciting questions and discussion in order to clarify the function of the text for children. If teachers do not do this, the resultant text is often inappropriate or confused from the point of view of genre" (p.195).

Hammond (1986) also reports on the use of a genre approach to teaching writing in her three year study of junior primary children. She used modelling as a strategy for teaching writing. Hammond concluded that the modelling of texts which had occurred through the teacher reading aloud, shared reading, written re-tellings and the children's exposure through listening to stories and independent reading at home had contributed to their ability to write narrative. Using the knowledge that modelling was successful for narrative, she decided that it was the most effective means of "incorporating a focus on process with the teaching of a variety of genre" (p.87). Initially she tried to provide models of both narrative and reports through reading to children, but soon discovered that there were not enough suitable models of either genre, especially reports, for her

purposes. Her response to this lack of materials was to try jointly-constructing examples of narratives and reports with children. The process she used involved:

- discussion of the topic and the decision to write a story or report on what the children knew about the topic
- the teacher writing the title and the text on the board and discussing what should go first, whether there was a need to write more about a particular aspect;
- group re-readings of the text created; and
- children writing their own text.

Her findings were that "the majority of children were aware of the schematic structure, the use of reference, and the use of tense which are appropriate for narrative and reports" (p.90). She discovered also when children wrote their own pieces they rarely copied the text they had jointly-constructed, even though it was permissible to do so. The children referred to the model for spelling, specific vocabulary items or even for whole sentences, but "the great majority in one way or another created their own texts" (p.92). Hammond's overall conclusion for her three year long study, was that the "ability to differentiate genres seems ... to be further proof that the modelling of reports and narratives is assisting children to gain control of those respective genres" (p.92).

Isolated studies which are not based on the genre approach reveal the strategies which other teachers are using to help junior primary students write non-fiction.

Involving Children in a Variety of Activities

A number of these classroom teachers used an approach where children's writing emerged from a variety of activities. For instance, the children in K Smith's (1990) class made individual books about lambs as a result of keeping lambs in the classroom. They also made what K Smith calls an evaluative non-fiction text which they produced at the end of a theme and which contained a summary of what they had learned.

Hastwell (1987) lists four activities which she believed helped children to become experts on the topic of dinosaurs. These were:

- art and craft activities to create a mural in which the landscape, vegetation and dinosaurs were accurately represented and labelled with appropriate captions
- recording information of particular interest to children that demanded careful descriptive writing
- excursions to the Museum and Botanical Gardens; and
- discussion of non-fiction texts throughout each of these activities

Hastwell states that these learning activities enabled children to gain control over content and were critical to their writing efforts.

Reading and Analysing Non-Fiction Texts

Reading and analysing non-fiction texts seems to be a frequently used strategy. Hastwell (1987), Webster (1990), K Smith (1990) and F Smith (1989) all read non-fiction texts to children to help them gather information they need for their writing tasks, because they could not readily access the

texts for themselves. This also involved discussion of how texts were organised to facilitate access to information.

Peer Collaboration

Peer Collaboration was a major strategy used to help individual children to create a successful written product. This is particularly evident in Hastwell's (1987) account of the processes she used to help children to solve the problems they faced when producing individual informational pamphlets on dinosaurs. Rather than telling children how to go about the process, Hastwell observed the children closely and provided help as the children needed it. She adopted a strategy of bringing the children together to share and discuss their approaches at various stages of the process. She knew there were seven or eight children who had insights into the writing tasks that were worth sharing with other children. To facilitate such sharing Hastwell organised the children into small groups to discuss and compare their work. She describes what typically happened in these groups.

> "Attention invariably fell on those children who had drawn up contents pages as it was their books which had progressed the furthest. The slow-starters listened intently to explanations of how to number pages and put small amounts of information on each page with large pictures" (p.202).

Hastwell makes the observation that the information about using a contents page made an impact on some of the children who were struggling. She suggests that the construction of a contents page allowed one child to stop laboriously copying from other sources.

A collaborative approach to the development of research skills is also described by Webster (1990) in her account of her classroom practices.

After a demonstration of how to list observations and to sort and categorise them, Webster had her year one/two class try this process out themselves. A canary was bought into the classroom and the children had to note, over a period of days, the things they observed about him. The next step was to combine the thirty-five notes the children had written and to work out categories. Children were paired and selected a category to work on. Their task was to re-write the notes into two or three sentences. They then worked as a whole class, on the things they still wanted to know and with the teacher's help they posed their questions. A process was then developed to answer their question. After a good deal of researching the children worked in pairs to record their answers which were published in a book form and shared with the class.

Webster found that following this experience of writing and researching that the children were using some lists in their own creative play activities; were starting to categorise information in other subject areas; recalled the research process they had used; could talk freely and knowledgeably about birds and showed a new interest in non-fiction.

Using Journals

Journal writing was another strategy employed by some teachers to help children to be independent learners and thinkers (O'Malley 1989, Hancock 1989).

O'Malley had the children in his composite reception to grade two class, use journals in mathematics as a "vehicle for clarifying their thoughts" and as a means of helping him to assess "how their mathematical understandings were developing" (p.17).

During a set time on Friday each week, the children wrote an account of what they had learned or discovered in mathematics that week. Time was provided too for them to share their findings with the class. The journal was also used, at the beginning of new topics, for children to write what they already knew about the topic.

O'Malley observed that the children's journal entries varied greatly in quality and in the detail provided. He reports a number of gratifying outcomes of the use of journals in mathematics. These were that the children showed an "increasing confidence and ability in being able to explain clearly, in writing, what they achieved in mathematics" (p.19). The children also showed a keen interest in re-working their journal entries to publish their ideas through displays in the classroom and corridor or through the school's newspaper.

Writing Letters

Milz (1985) encouraged her first graders to develop their skills as non-fiction writers by having them write letters to a variety of audiences such as parents, government officials, children's authors, to her and to each other. One classroom innovation enabled children to use writing to build relationships. For instance, she set up a mail-box in which she placed her notes to the children. The children responded if they wanted to.

Moore (1988) implemented her version of Milz's letter writing strategy in her own classroom. She decided to write to the children each week and include things she had noticed in her observations of them or questions she wanted to ask them. The children wrote their responses to topics such as the reading processes they had used. Moore explains that she was aware that her letters were a model for the children to use and were

one means of introducing them to the simple formalities of letter writing. One outcome was that the children discovered "that writing letters takes a different form from writing stories or facts" (p.9).

Another letter writing strategy reported in Comber & Badger (1987) emerged from the children's involvement in the process of trialling new non-fiction big books. The teachers of these children from reception to grade two introduced them to the non-fiction big books through Shared Book Experience sessions. Both Barbara Comber and I and Steve Moline the writer of these books, were keen to find out what the children thought about the books. The children were aware that their comments would be taken seriously and used to refine the texts. The letters which the children wrote to Steve or to us told of their favourites or gave suggestion for other new titles or included unanswered questions or criticisms. Barbara Comber and I concluded that the children's letters revealed that "young children are perfectly capable of indicating their problems, questions or criticisms, in response to books" (p.22).

Use of Environmental Print

The final strategy which was reported in some of the studies was the creation of labels, lists, schedules, notes, charts, signs in the classroom (Milz 1989). For instance, Milz reports that charts and schedules were used in the classroom to help things run smoothly for example, listing how each child would go home; schedules of important activities for the day etc. Through their involvement with these and other forms of print, the children used writing to establish ownership or identity; to remember or recall and to record information.

Reading Strategies

The major reading strategies being used in junior primary classrooms seem to be:

- reading aloud
- creating reading materials
- independent reading
- Shared Book Experience

Reading Aloud

Teachers read aloud to children to help them to gain access to information (Turbill 1987, F Smith 1987, K Smith 1990, Hammond 1986, Hastwell 1987, O'Brien 1988, Webster 1990). Webster (1990) reports that she read a variety of non-fiction texts to children so that they could become "familiar with the language and organisation of the text" (p.5). She enlisted too, the parent's support and had them read aloud to their children at home and discuss the information they had listened to.

To provide children with the support they need to use reference books as a source of information O'Brien (1988), not only read the text aloud to her reception to year two children, but she also adapted the text as she read, to suit the children's needs or provided explanations where necessary. She invited the children to stop her reading aloud when they heard a key word or the answer to a question they asked. The sentence containing the key word was then read again while the children listened carefully. The children and O'Brien then made a decision about whether they needed to record the information and how they would do it. O'Brien also incorporated a "Think Aloud" procedure as part of reading aloud to

students. Thinking aloud was a strategy she used to show children how an experienced researcher does things, and to guide them through the steps in the research process (p.21). For instance, when a group of five year olds needed to find out the name of animal babies to pass this information on to the next class, O'Brien demonstrated how to go about the process of selecting an appropriate book by providing a running commentary of her thought processes as she selected a book from the library shelves. She rejected books with unsuitable titles and explained why. When she found one she thought appropriate, she verbalised her processes for using the index to find the information she needed. In general, O'Brien uses this think aloud process to "locate a book, use the contents or index, and skim read using the key word which the group and I have selected as our research term" (p.22). F Smith (1989) reports that she used a similar kind of process as she read aloud to help her class to use a contents and index, to locate information and to read the relevant sections of texts.

Creating Reading Materials

One way in which classroom teachers overcame problems with texts which were too difficult was to actually create texts which were "considerate" of children's needs (Webster 1990, K Smith 1990). Webster (1990) reports that she and Lyn George, one of the school librarians, researched and wrote a book about canaries which the children in her year one and two class would be able to read more successfully than the large number of non-fiction texts about birds and canaries that were available to children from the school library. Each child was provided with a photocopy of this book.

The lack of appropriate texts on the themes she wanted to use in the classroom led K Smith (1990) to write her own enlarged texts or "big books" on topics. She wrote one text in particular, without any discussion with the children in this class. This text was on the topic of dairy cows and was, according to K Smith, the most effective text she wrote because it contained many different models for children. The purpose of this text was to introduce children to the dairy cycle. K Smith also produced big books with the children to create appropriate reading materials. For example, she and the children jointly produced the following big books, How To Care For A Lamb, Does This Animal Live On A Farm?, Our Australian Coins and All About Bears.

Children were also involved in creating non-fiction books for each other and for younger children (Webster 1990, K Smith 1990, F Smith 1989, Hastwell 1987, O'Brien 1988).

Independent Reading

In all of the teacher's accounts of their classroom practices, teacher's report that children had time for independent reading of non-fiction texts, either those they had created themselves or commercially produced texts. (Webster 1990, O'Brien 1988, F Smith 1989, K Smith 1990, Hastwell 1987). Hammond (1986) and Badger & Comber (1987) also reported that the teachers in their study provided time for independent reading. Comber & Badger (1987) reported that children were encouraged to read non-fiction texts in small groups, in pairs and individually, and that the children browsed through the books, or discussed the detail of the photographs and the illustrations.

Shared Book Experience

Shared Book Experience was used as a major strategy by the six teachers in Comber & Badger (1987) and Badger & Comber's (1987) studies as well as by K Smith (1990) who wrote an account of her classroom practices. Holdaway (1982) reports that in 1973 the New Zealand Education Department trialled the techniques of Shared Book Experience with thirty-five children over a two year period. Shared Book Experience techniques were an attempt to translate the developmental learning principles embodied in bed-time story reading situations which are experienced by many children from literate homes (Holdaway 1979). The characteristics of this developmental learning are described by Holdaway (1979):

> "Developmental learning is highly motivated, consistently purposeful, globally activating, powerfully reinforced both intrinsically and extrinsically, and meaningfully related to other aspects of development ... Furthermore, the way in which supportive adults are induced by affection and common sense to intervene in the development of their child proves upon close examination to embody the most sound principles of teaching. Rather than providing verbal instructions about how a skill should be carried out, the parent sets up an emulative model of the skill in operation and induces activity in the child which approximates towards the use of the skill" (p.22).

The predictable structure of Shared Book Experience sessions is described in the following way by Holdaway (1979):

- tuning in (new or favourite book)
- re-reading of favourite stories (learning skills in context
- language activities (alphabet study/games)
- reading a new Story
- independent reading (individual or group)
- expressive activities such as writing or art activities

Other writers have also described Shared Book Experience (Salinger 1988) and how to use it (Slaughter 1983, Strichland & Morrow 1990, Butler 1984, Cassady 1988, Clay 1979).

Enlarged texts or "big books" are a feature of Shared Book and are used so that "the common focus of attention ... is on the text - on print" (Holdaway 1987, p.34). Typically the texts described for use in Shared Book Sessions are stories, poems and rhymes (Holdaway 1979, Butler 1984, Cassady 1988, Clay 1979, Slaughter 1983).

It is on the issue of text selection that Gray (1986) criticises Shared Book Experience as it is used in Aboriginal schools in particular.

> "This approach is coming to be used widely with Aboriginal children because it does seek to involve children in meaningful reading from their earliest encounters with print. However, if it is viewed in terms fo the text models it provides, Shared Book Experience holds some potential pitfalls. Most Shared Book programmes contain a limited range of text models, particularly in the early stages. Factual writing is non-existent and even narratives are infrequent and often poorly structured" (p.202).

Gray recommends that Shared Book Experience needs to be considerably extended so that young children can read valid examples of both narrative and factual genres.

Comber & Badger (1987) also claim that the use of non-fiction texts in Shared Book sessions is a rare experience for junior primary children. However, this research was a deliberate attempt to find out what happened when junior primary teachers were provided with enlarged non-fiction materials for use in Shared Book sessions. The teachers were given no extra guidance for using the books so that the results of this research

reflect the teacher's solutions to the problem of teaching reading using non-fiction big books.

During the Shared Book sessions the teachers used strategies such as providing demonstrations, encouraging the children to talk for a variety of purposes and setting tasks.

The teachers demonstrated how to predict during reading. For instance, they masked the title of the text and asked the children to make predictions on what the book was about using the illustrative information on the cover. Or children were asked to predict the kind of information they might find about the topic etc. Teachers also showed the children how to use the organisational features of the books, for example, contents, index, headings to locate information. They also helped children to interpret the illustrative material in the text and they provided concrete demonstrations of concepts such as the length or height of animals in the texts.

An analysis of the data revealed that a great deal of the time teachers and children spent working with the book was taken up with discussion. Some of the purposes for this discussion were "to help children make connections between their own experience and the information in the book, to discuss logical connections between the ideas in the book and to challenge children to provide their own explanations of concepts and events" (Badger & Comber 1987 p.7). Children were also given the opportunities to work in small groups to share their understandings about topics dealt with in the books.

The teachers were ingenious at providing tasks which helped children to know what they had learned. Some of the tasks used were:

- asking children to write about what they had learned or what they found interesting
- having children brain-storm, categorise information and present it in "big book" form for other children to read
- having children collaborate in pairs and small groups to carry out research tasks

We concluded that the tasks which the teachers set "allowed children to be successful irrespective of their ability to read and write independently ...." (p.8).

K Smith (1990) also used Shared Book Experience to help her class to read and write non-fiction. She produced her own non-fiction big books to overcome the lack of appropriate texts on the topics she wanted. Smith reports that initially she thought that one of the texts had too much detail for the children to deal with, but when she used it with the children, they "listened, asked questions, remembered the information and read the book many times on their own" (p.13). Some non-fiction big books were developed by Smith to allow her to focus on specific aspects of writing e.g. in Does this Animal Live on a Farm? The title question is repeated on each page so that the use of the question mark and what it means was reinforced. The outcomes of her use of the big books with children and their participation in the production of big book texts themselves were that the children extended their general knowledge and their understanding of reading for a purpose.

2.5 SUMMARY

The literature reveals that there are different perspectives about what constitutes early literacy instruction and the sequence in which literacy skills should be taught. These perspectives have a profound effect upon considerations about the appropriateness of teaching non-fiction literacy in the early years of schooling. For instance, beliefs that children must learn-to-read before reading-to-learn and that narrative is the most appropriate material for early instruction provide an effective rationale for delaying instruction in non-fiction literacy until the later years of primary schooling. On the other hand, the fact that young children do learn the functions and forms of non-fiction literacy in both the home and the early school settings provides compelling evidence that instruction in non-fiction literacy in the early years is both possible and desirable, particularly in light of the benefits such as academic success, intellectual and social empowerment, which children are likely to accrue through such instruction.

Teachers and researchers are currently developing and documenting ways of providing effective instruction in non-fiction literacy. The strategies which are currently being developed are, according to teachers and researchers, helping children to successfully read and write non-fiction in their first year of schooling. The availability of commercially produced non-fiction big books has created opportunities for teachers and researchers to provide young children with exposure to good models of non-fiction texts and ways of operating on them. How teachers use these texts and what the children learn from their engagement with them through Shared Book Experience sessions is the subject of the present study.

CHAPTER 3: METHODOLOGY

3:1 RESEARCH QUESTION

The research focuses on what young children (six year olds) can learn from their participation in a program of Shared Book Experience Sessions, and related activities which were based on the use of enlarged non-fiction books.

3:2 NATURE OF THE RESEARCH PROJECT

The challenge in this research project was to discover what happens when a specific instructional technique, Shared Book Experience is used to teach young children to read non-fiction books. To meet this challenge, it was necessary to work with children and their teacher in their usual classroom setting.

The research then is essentially exploratory in nature. It aims to investigate, describe and analyse what actually happens in a particular kind of classroom interaction between the teacher, the children and non-fiction books and what children learn from this. Like other researchers such as Harste, Burke and Woodward (1984) my interest in language arts teaching and research is, in the final analysis, an interest in learning. My research is within a paradigm that is ethnographic in spirit, or as Harste, Burke & Woodward (1981) put it, the research could be considered to "adopt an

attitude of ethnography" (p. 95) in that it explores whole language events and "respects the process and one's involvement in that process" (p. 96). This attitude is built on an "I can find out" stance to research.

Many of the techniques of naturalistic research are drawn on in this research. These are:

- immersion of researcher in the natural setting of the phenomena under investigation
- use of data collection techniques such as observation, interviews and document analysis which require the "human as instrument"
- purposeful sampling
- "member checking" as a "direct test of findings and interpretations with the human sources from which they came...." (Lincoln & Guba 1985 p. 301)
- "peer de-briefing" as an "external check on the inquiry process" (Lincoln & Guba 1985 p. 301)
- inductive data analysis so that the categories for analysis actually emerge and evolve from the data itself
- "triangulation" through the use of different modes of data collection (e.g. interviews, observation, document analysis)

3.3 THE RESEARCH SITE

The following description of the research site, Kidman Park Primary School, is based on the responses from the School Principal and Sue Hoare, the classroom teacher, who participated in the research project. They both responded to a series of questions (see Appendix I) which were devised to provide information about the school context.

Kidman Park Primary School is located in the western suburbs of Adelaide. At the time of the research study, it had an enrolment of 350 students and a staff of 22 teachers. The Principal expressed the belief that it is an ideal size for a school because she was able to get to know all of the children.

The junior primary school consisted of a large Open Space Unit which had eight major teaching areas, withdrawal rooms, offices for teachers and storage spaces. It was called an "open space" or "open plan" unit because there were no walls to divide the teaching spaces. This meant that the eight teachers could choose ways of working with children outside the traditional one teacher/one class arrangement usually found in metropolitan schools. The teaching space in which Sue and her class operated was one of the eight in the open space unit. The unit itself was fully carpeted, was air-conditioned, and provided wet areas for art and craft activities, a withdrawal room and offices for the teachers. In her area, Sue had set up a library corner with bean bags and a special maths area. The teaching space was made very attractive and interesting by the display of commercially produced books and the children's own work and writing.

According to the Principal, the community from which the school's population was drawn, was an "interesting mixture of lower socio-economic and upwardly mobile middle class families". Greek and Italian people made up 36% of the community. The Principal reported that the diverse nature of the community was reflected in the range of attitudes, values and beliefs which the parents had about such issues as the purpose of schooling, children's rights and approaches to discipline in the home and at school.

The school had an "open-door" policy about parent involvement and parent-teacher communication. There were many opportunities for parents to participate in the school program through things such as the School Council; the Parent Club; Learning Assistance Program; Poorly Co-ordinated Children Program; library work; and assisting in individual teacher's classrooms.

Both the Principal and Sue Hoare stated that they thought the whole staff believed parents would be involved in the school in their own way if they were given the opportunities to do so. The staff, they said, worked hard to affirm the parent's contribution.

The school, in accord with the South Australian Education Department's expectations, had developed policies on key issues such as equal opportunity, multiculturalism, and discipline. They also had policy statements for each curriculum area. Key teachers had been appointed to support classroom teachers to implement these policies. Each of these policies had been developed by the whole teaching staff after periods of intensive inservice programs and activities.

Sue and the Principal reported that the key distinguishing features of the school were:

- a consistent approach
- a concern for individuals
- a business like approach to teaching
- the professionalism of the staff

The Principal reported that the major problems with which they were grappling were:

- the consequences of falling numbers e.g. reduced staffing, larger class sizes
- the pressure which came about through the uncertainty and complexities of trialling new approaches to teaching and experimenting with new ideas.

3:4 VISITS TO THE SITE

During the second school term in which the major part of the research was carried out, two regular visits were made to the research site each week for 10 weeks. Each of these visits was approximately two hours long. A further three visits were made that term to carry out interviews. A number of visits were made in the third term as well, to interview children about projects they had done and to talk with Sue Hoare about further analysis of data gathered in the research study.

Time constraints allowed only two morning periods a week during which Sue could do the Shared Book sessions.

3:5 THE INFORMANTS

The Teacher

At the time of the study Sue Hoare had taught classes from reception to year three, over a period of eleven years, five of which were spent at Kidman Park Primary.

Sue was invited to participate in the research study because she had a high level of professional interest in young children's development as non-

fiction readers and writers. She had demonstrated this interest by her involvement in two earlier research studies carried out by Comber & Badger (1987), and Badger & Comber (1987). In these studies Sue was one of six teachers who trialled the Informazing (Methuen 1987) series of non-fiction big books and who explored ways of using them to foster children's development as non-fiction readers. She was very aware, therefore, of the potential of these books since she had used them with her class in the previous year. Furthermore, she was familiar with the techniques of Shared Book Experience and their use with non-fiction big books. Sue shared an interest in finding out more about what the children in her class learned from her sessions and related activities with these non-fiction big books.

Because of her expertise in the area under study, Sue contributed to the research through her observations of and discussions about the children. Sue checked my summaries of the data and helped analyse some of the data.

Sue articulated several beliefs which guided the ways in which she operated with the children. These were:

- children learn by doing, and must therefore have many opportunities for real life, "hands on" experience
- children learn at different rates
- the classroom climate should be built on a two-way trust between the teacher and the children, and between the children themselves
- everyone makes mistakes and can learn from them

- it is important for children to "have a go" at things and take risks
- children's opinions have to be valued
- children must be respected as individuals

To ensure that the children functioned independently in the classroom, Sue negotiated and set up:

- routines for the use of classroom materials
- rules for which kinds of behaviour were acceptable and unacceptable
- the consequences which could be expected as a result of the latter
- a timetable for regular events such as German lessons, library time, assemblies, health "hustle" and special activity times.

When asked to provide a general comment on this class of children, Sue stated that they were "noisy, exuberant, bubbling over" and that she could share a joke with them, particularly with a few of the children whom she described as "personalities". She believed that the children liked it when she disclosed various things about her own life such as her pets. She also thought that the children were very honest about how they felt and what they liked and disliked about lessons.

The Class

The class Sue taught was a composite year one and two group of 26 children. The group consisted of 13 boys (9 year one's and 4 year two's) and 13 girls (11 year one's and 2 year two's). Anglo-Australian children

made up the largest ethnic group in this class with children from Greek, Italian, Malaysian and Lebanese backgrounds making up the rest.

The Children

In order to get the kind of detailed information I needed, I focused on only a small number of children.

I asked Sue to select three children for each from the following broad categories for describing children's confidence as readers:

Category 1 confident/enthusiastic/successful

Category 2 coping/confident

Category 3 insecure/reluctant/struggling

The children were selected in this way so that both the teacher and I could gather data on children who were experiencing varying success as readers. Equal numbers of both girls and boys and children from a range of ethnic backgrounds were initially selected for the study. However, due to factors such as absence from school and time constraints, data were consistently collected from only six children. These six were as follows:

<u>Category 1</u>

Kate - female, Anglo-Australian parents, 6 years old

Alicia - female, Anglo-Australian parents, 6 years old

<u>Category 2</u>

Karen - female, Anglo-Australian parents, 6 years old

Kevin - male, Malaysian parents, 6 years old

Category 3

Nichole - female, Anglo-Australian parents, 6 years old

Karl - male, Lebanese parents, 6 years old

Sue was asked to provide a sketch of her perceptions of each of these children as readers and writers. A brief summary of these descriptions follows. A complete typed version of Sue's notes can be found in Appendix II.

Kate:

Kate is a confident, fluent and highly motivated reader who flexibly adapts her reading rate and style according to her purpose and the material she reads. She borrows from the library and reads a wide variety of books. Kate is also a confident writer who writes on a variety of topics and uses a range of writing forms, such as stories, poems, reports, recounts. She uses punctuation appropriately, including speech markers. Kate uses temporary spellings and gets most sounds correct. Her general knowledge is outstanding.

Alicia:

Alicia reads a variety of books both fact and fiction and is tackling quite long and complex stories. She uses a variety of word attack strategies and has a good understanding of what she reads. Alicia also writes a variety of texts, such as poems, tongue-twisters, recounts and most of these can easily be read by others. She has made good progress, her general knowledge is well developed and she enjoys asking questions about why things happen.

Karen:

Karen is eager to read, enjoys the humour in stories and is gaining in fluency and confidence. She is being encouraged to read a range of books and to extend her repertoire of word attack strategies. She frequently borrows books from the school and local library. Karen writes freely on both fiction and non-fiction topics. She uses temporary spellings and capital letters and full stops. She is eager to read her pieces to other children. She has made very good progress since the beginning of the year.

Kevin:

Kevin is a confident and fluent reader who has a good sight word vocabulary and understanding of what he reads. His main word attack strategy is 'sounding out'. He enjoys discussing stories and illustrations. He borrows non-fiction from the library and brings his own books to school to share. He is being encouraged to read longer books. He has made pleasing improvements in writing and is now writing more and is moving beyond using only the words he knows how to spell. He is being encouraged to use more 'book language' in his writing. Kevin has a very well developed general knowledge - he explained the rain cycle to the class.

Karl:

Karl is becoming more aware that he needs to read for meaning. He didn't enjoy reading at the beginning of the year and recognised very few words by sight. He is developing some work attack strategies and is being encouraged to talk about the books he reads. He is now writing stories

that others can read and is beginning to use book language. He often writes pieces based on I like ..., I went ... structures.

Nichole:

Nichole recognises a few basic sight words and is just starting to read for meaning. She can choose a favourite part of a story and talk about it. Her parents read to her at home. Nichole can read familiar material using her memory for text and can create text to match pictures in unfamiliar texts. She enjoys reading language experience texts which have been scribed for her. She tries to write using I like ... patterns and can sometimes produce the first letter of words. She is being encouraged to analyse the sounds of words and to work out how to represent them.

Data drawn from these six children then formed a major part of this study. However, a selection of written products gathered from the whole class was also examined.

3.6 THE NON-FICTION BIG BOOKS

The books used in this study were from two Australian series of books: Informazing (Methuen 1987) and the Australian Animal Series (Methuen 1986). The specific titles for each were as follows:

Informazing

The Life of the Butterfly

Caterpillar Diary

Book of Animal Records

Mystery Monsters

Animal Clues

Australian Animal Series

Large Marsupials

Small Marsupials

Prehistoric Giants, plus a frieze on dinosaurs

3.7 METHODS OF DATA COLLECTION

The main data gathering methods were qualitative in nature and are described below.

Observations of the teacher:

These were carried out to provide a picture of what the teacher actually did in the thirteen Shared Book Experience sessions when she used the non-fiction big books with the whole class. For the first few sessions, a detailed record was made of everything the teacher did, but in subsequent sessions these notes focused only on the questions she asked. This narrowing and refinement of the focus emerged from the realisation that the teacher used questioning as the most frequent means of directing the children's attention to salient details of the text and of encouraging and challenging their thinking. In order, though, to capture a complete picture of the kinds of interaction between the children and the teacher, a video tape was made of one of the Shared Book sessions.

Interviews with the teacher:

Interviews with the teacher were a means by which her perceptions, observations and intentions could be tapped. The teacher was assumed to "hold, use and develop personal practical knowledge" (Clandinin 1986 p. 12) which informed her teaching and decision making. Some of the interviews were loosely structured so that Sue's understandings and

beliefs about certain broad areas could be probed. For example, the effects of her non-fiction program on the class, and her general intentions for the Shared Book Sessions.

The loose structure of these interviews created opportunities for Sue to raise issues or report on events which went beyond the immediate scope of the interview questions. These interviews were more like natural conversations in that we could each initiate and pursue items of interest.

On other occasions, the interviews focused on the specific questions which I believed were important to answer, such as what she had specifically noticed about the six informant's behaviours as non-fiction readers and writers or what influence she thought I had on the children.

Apart from the interviews which were deliberately scheduled by me, Sue and I had other conversations that emerged from the ordinary course of events of being in the same location (Woods 1986). For instance, we frequently had time to talk when I first arrived in the classroom or at recess times or when the children were doing a follow-up task immediately after the Shared Book Sessions. These conversations weren't recorded or documented except for the quick notes I made on an issue raised or information given about the children's behaviour with the books.

Interviews with the children:

Most of the interviews with children were very open ended to allow the children and me to pursue their interests and understandings. However, there were three occasions when interviews focused on quite specific questions. One of these structured interviews occurred after they had

shared Caterpillar Diary. Each child was interviewed and asked the following questions:

What did you like most about the book you read this morning?
Why did you like that part?
What did you learn?
Did you find something new today?
Can you tell me what happens after the eggs are laid?
Can you remember why the moth scares the birds away?

Can you show me what this means? [pointing to the colour coded legend for a diagram of the caterpillar showing the mouth, feelers, antennae, feet, etc.]
Can you now show me the same parts on the photographs of the caterpillar?

Can you find the word "eggs" in the index for me?
Can you find the page in the book?

These questions were intended to find out;

- what the children liked about the book
- what they thought they had learned
- what they remembered about the lifecycle of the caterpillar
- whether they understood how the moth scares it predators away
- whether the children could independently interpret the legend and diagram of the caterpillar and relate the diagram to the photograph of the caterpillar

- whether they could remember where the index was and how to use it to locate an entry
- whether they could find the entry in the book

Initially some problems were experienced with some of the children's responses to my questioning in both kinds of interview. Karl, in particular, presented me with a dilemma. When asked a question, he would often just look at me and not respond at all. There were a number of excruciatingly long silences while Karl and I sat and looked at each other. Then my response was usually to ask if he had understood the question and to re-phrase it if he had not, and to continue to wait if he had. I discussed this child's response with Sue and she said that it was a typical behaviour for Karl. My own experience as a teacher led me to believe that it is not unusual for children who are inexperienced readers and who lack confidence in themselves to resist responding when asked direct questions. This can be particularly so when it is a one-to-one situation with someone who is a relative newcomer to the classroom. However, aside from these contextual factors, I believe that the primary reason that Karl behaved in this way was the fact that he had developed this strategy of non-response as means of avoiding challenges to his thinking and his competence. So, what I confronted was more a general strategy for coping with school that was applied in the specific interview situations.

The interviews conducted with the children were different from those with the teacher. The interviews with the children were an attempt to "expose positive aspects of what they know" (Ferreiro & Teberosky 1982). They were to some extent, like the "Piagetian" method of exploring children's thinking through dialogue (Sinclair in Ferreiro & Teberosky 1982). Most of

the interviews with the children included a task which involved an "interaction between the children and the object of knowledge" (Ferreiro & Teberosky) in this case, one of the non-fiction books.

The interviews with the children usually began with an invitation to read and talk about the writing they had produced in response to the teacher's follow-up activity after the Shared Book session. My responses focused on two things: the information the children had learned and their strategies for locating that information in the books. On some occasions I followed the children's lead and asked questions to probe the information they had learned. For example, "What else did you learn?"; or "How do you know that every dinosaur has scales?". On other occasions I drew up a specific set of questions which I asked of the children about the content and aspects of the books.

The same decision applied to the process of locating information. In some interviews I asked children to locate the information they had written about but on others I asked them to locate particular information using both the contents and the index.

Overall the interviews were designed to reveal the following:

- what children had learned
- the children's capacity to interpret non-print materials such as charts, diagrams, photographs
- the children's understanding of the concepts signalled by words such as shelter, habitat, nocturnal, marsupials etc.
- their understandings about the oganisational features of non-fiction texts and how to use them to locate information

Observations of children:

Observations of the six research informants were made in four different kinds of settings:

- playing a game
- doing a small group writing task
- doing teacher set writing tasks after Shared Book Sessions
- doing a paired reading task

In the first of these settings, the children played a dice game which was included on the back page of Mystery Monsters (see Appendix III for details of the game). This game required the children to use the information they knew or could obtain from the book to play the game successfully. The children really enjoyed the game and were highly motivated to play it. Watching them play it provided information about what they knew about the creatures in the book and also about the coping strategies they used when they did not know or could not remember the answer. It was an ideal way of tapping children's competencies in a setting where the focus was on having fun using what they knew and could do.

The children were observed while carrying out a group writing task. They had to write about an animal which was not one of those they had read and heard about in the non-fiction big books. Their behaviour was documented and analysed to reveal how they went about the task and their use of resources, if any, for finding the information.

Observations were also made of children as they participated in a paired reading task. This was another means of finding out what they were

learning about being non-fiction readers from the teacher's Shared Book Sessions. The children were grouped in pairs according to their placement in the categories mentioned earlier, that is, Kate and Alicia; Nichole and Karl; and Karen and Kevin worked together.

They were told that they were going to be the teacher. Their task was to read a non-fiction big book, of their choice, to a group of reception children (five year olds). The pairs had time to talk with each other and think about what they would do before they did their Shared Book session with the small group of younger children.

Each pair was video taped as they carried out the task. They were shown the video afterwards so that they could respond to it. The children's behaviours for this paired reading task were analysed to reveal what they had attended to in the teacher's demonstration of using the books and what the children had learned about being non-fiction readers.

Children's Writing:

After most of the Shared Book Sessions, Sue set the class a writing task which usually required them to reflect on what they had learnt from their involvement in the Shared Book Sessions. (See Chapter 4 for specific details about each of these tasks.)

Written products were collected from the whole class. Only some samples were analysed and reported on since a relatively small number of samples could exemplify what children were learning. These were included because they provided the most interesting and compelling information about the children's understandings about writing and reading non-fiction.

These samples of children's writing emerged as an important source of data because they give some indication of "what is in people's minds - and that cannot always be readily 'observed' or obtained at interview" (Woods 1986 p. 101). The writing served as a window to children's developing understandings about the features of non-fiction texts.

3.8 SUMMARY OF SOURCES OF INFORMATION

A number of sources of data for analysis emerged from the data collection. These are summarised in the following chart:

1. Field notes of observations of teacher in thirteen Shared Book Sessions
2. Transcript of interview with the Principal
3. Transcripts of interviews with the Teacher
4. Notes of informal discussions with the Teacher
5. Teacher's program
6. Video and transcripts of Shared Book Session
7. Teacher's written description of children's reading behaviour
8. Thirty transcripts of interviews with children and teacher's comments on transcripts and analysis of interviews
9. Video of children in paired reading task, and a transcript of this video
10. Observation notes on children
11. Children's written products

3.9 DATA ANALYSIS

Of the sources of data tabled, the interviews with the children and the observations of the teacher were the core data. The other data served as

a means of triangulating to improve "the probability that findings and interpretations will be found credible" (Lincoln & Guba 1985).

The data analysis had two modes which are described as "analysis in the field" and "analysis after data collection" (Bogden & Bilken 1982). In this first mode, some data were analysed concurrently with data collection to:

- narrow the focus of data collection;
- refine the research questions;
- assist in the process of deciding what data to collect through subsequent interviews, observations.

Often during this phase I shared with the teacher some of my observations of the children and of what she had done in the Shared Book Sessions. This sharing of observations of the children often led to speculation about what they were learning and what was influencing them. This same process of sharing observations of what the teacher did more frequently led to a form of "respondent validation" (Woods 1986) or "member checking" (Lincoln & Guba 1988). During the analysis of data after the collection phase, processed accounts of my observations of the teacher and of my interviews with the children were also given to Sue so she could check them for accuracy and add any comments, interpretations or explanations of her own.

However, I received very little feedback from Sue for two reasons. Firstly, the processed accounts were accurate, and secondly, Sue simply did not have the time to make her own written interpretations. The most useful information for her immediate needs had already been reported and discussed in informal conversations.

A process of peer de-briefing was also used with a variety of people who shared an interest in understanding more about the research topic. The major group was comprised of five colleagues who were also doing the Masters (Honours) degree and our supervisor, Dr. Mike Dilena. This group has played a fundamental role throughout the period of this research, in helping to establish the credibility of the data and to support and challenge my thinking. For example, this group watched the video of both the teacher's Shared Book lesson and of the children's performance in the paired reading task. They highlighted things which they thought were significant and asked questions about my interpretations of these events. The group also read my processed accounts of observations and interviews, and checked that my interpretations were properly grounded in the data.

The process of peer de-briefing was shared by other colleagues such as Dr Claire Woods, Superintendent of English Curriculum; Phil Cormack, English Language Projects Co-ordinator and Lyn Wilkinson, Lecturer in Language Arts Curriculum. I also ran a seminar for my colleagues in the College on my research, and presented a variety of workshops and papers at Australian Reading Association conferences.

The actual process of analysis after data collection followed a particular pattern for the interviews with both the children and the teacher. For each interview, I wrote a descriptive summary of what took place and then wrote my interpretation. My processed acounts of the interviews were read by Sue and the "masters" group. I usually asked them to check whether the inferences I had drawn from the data were justifiable. I also asked them to check that I was not using "leading questions" on putting

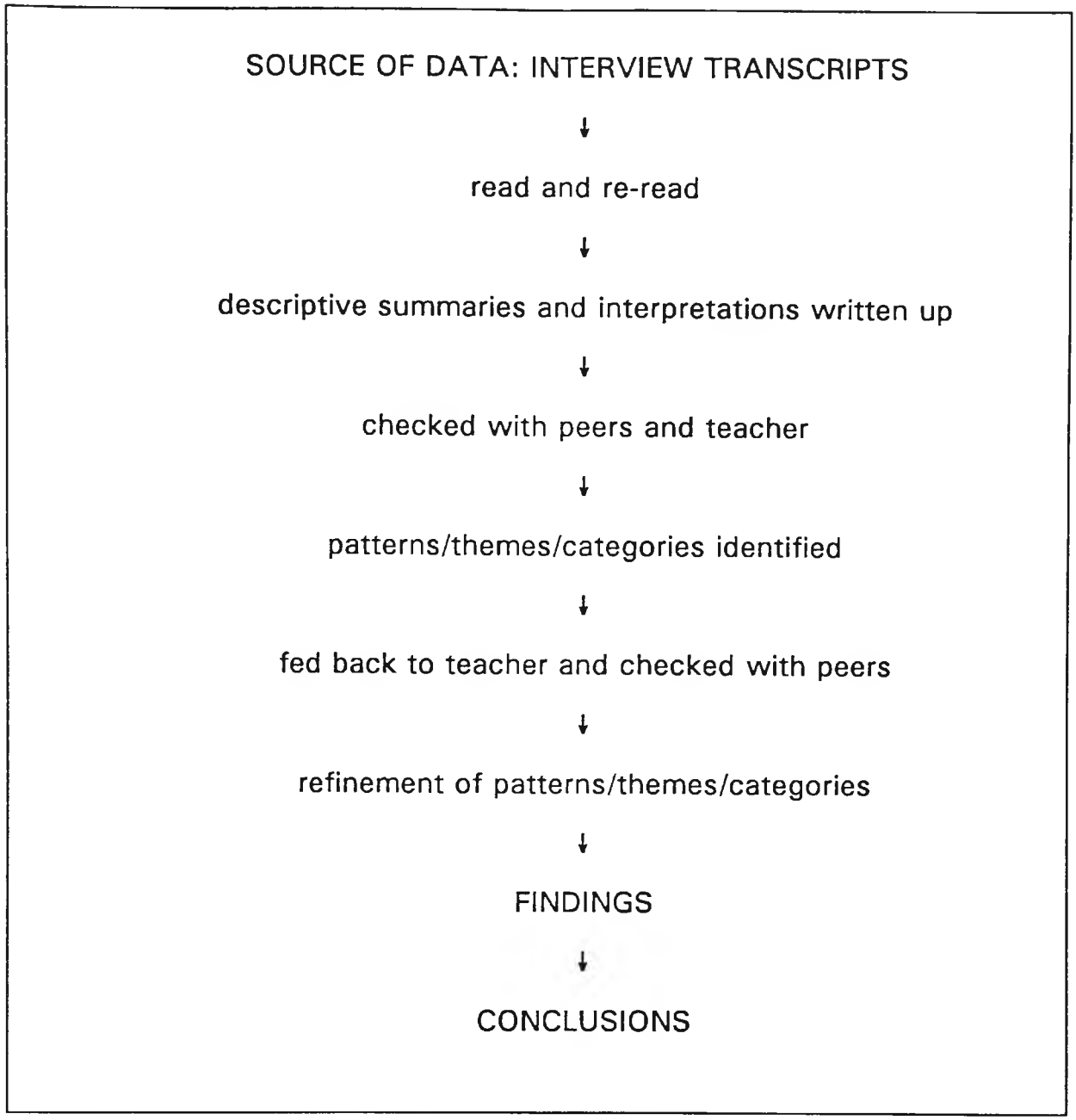
words into the children's mouths during my interviews with them. (See Appendix IV for examples of processed accounts and of readers' comments.)

After this process, I then read and re-read the raw data to look for any patterns or topics which I could use to organise the data in a systematic way. Key words or phrases in the interviews were underlined and notes made in the margin. For instance, some of these categories were "information", "operating as readers".

The observation notes of the teacher's sessions were also read and re-read many times in an attempt to sort Sue's behaviours into categories or to see patterns in what she did. Eventually, the key categories emerged based on the focus of her questioning behaviour. (See Appendix V for examples.) The feedback from peer de-briefing sessions helped me to refine my categories. These were then further refined as the chapter reporting these results was drafted and re-drafted.

The data from interviews and observations were analysed inductively, "that is, from specific raw units of information to subsuming categories of information" (Lincoln & Guba 1985). The categories for analysis emerged from and were defined by the data and not by pre-existing categories.

The following chart provides an example of the data analysis process used for sources of data from interviews.



In reality this process was more cyclic than linear because it was necessary to go back to the data to check and to refine the analysis.

The framework for analysing the children's writing did not emerge from the data. Rather I used the framework I had developed in an earlier research project (Comber & Badger 1987). While this framework was developed as a means of describing and evaluating the adequacy of commercially produced non-fiction books, it was also an effective means of analysing the children's writing. The categories of content, language, organisation

and mechanics which can be applied to non-fiction books are also appropriate for analysing the children's understandings about writing non-fiction.

Refinements and extensions were made to each of these categories as the samples of the children's writing were analysed. Further insights which influenced the analysis were gained from conversations with and feedback from peers, through seminar and conference presentations, and from reading about ways of analysing writing suggested by writers such as Derewianka (1990), NSW Department of Education (1989), Slater & Graves (1989), Badger et al (1991).

The following chart gives an indication of the areas of focus for each of the categories for analysing the children's writing.

CONTENT
- the kind of information provided
- what had interested the child
- appropriateness of the information to the task
- how the information was presented e.g. text, charts, diagrams, tables, drawings
- the use of comparisons; generalisations; definitions; categories; inferences

LANGUAGE
- use of precise vocabulary e.g. technical terms or common words used in ways particular to the topic
- complexity of sentence structures
- use of discourse markers, present tense, third person

ORGANISATION
- use of organisational features such as contents, headings, page numbers, index (where appropriate)
- focus of the writing
- awareness of reader's needs
- kinds of factual texts created e.g. report, recount

MECHANICS
- layout

Note that these categories were used as a framework for the analysis of the children's writing but not as a means of reporting on the results. The results, in Chapter Six, are focused and organised around the particular writing tasks which the teacher set. However, the categories for analysis underlie the treatment of each of the writing samples in the chapter.

3.10 LIMITATIONS AND STRENGTHS OF THE RESEARCH

The research was conducted in one classroom and it is clear that any findings may be a feature of the complex set of interactions that occurred in this one setting.

The outcomes were highly dependent upon Sue's expertise and on the conditions for learning which she created in her classroom. As Goodman (1989) says, the application of "even the most useful insights must be considered within particular contexts" (p. 211).

The scope of the research was limited. It aimed to find how one teacher adapted the techniques of Shared Book for teaching non-fiction reading and to explore what children learned from this experience. No data were drawn from lessons on activities outside of the Shared Book sessions. Furthermore, only a small number of children, six in all, were studied. However, writing samples were selected from the whole class.

The research also has a number of strengths which should be noted.

Firstly, it stands in direct contrast to earlier research in reading instruction which Duffy (1982) states "didn't include observation <u>during</u> instruction". This research does include observation of the teacher and children during a

series of Shared Book Experience sessions. In this respect it is an example of a researcher "studying real teachers teaching reading to real children in real classrooms" (Duffy 1982). One of the values of researching in natural settings is that it can result in "more a comprehensive form of research ... that makes a significant contribution to the practice of classroom reading instruction" (Barr 1986 p.231).

Secondly, the research affords an opportunity for researchers and teachers to learn from looking at exemplary teachers (Barr 1986). The data reported in the research represents the classroom teacher's decisions and insights about teaching. Although classroom teachers "struggle with significant problems everyday ... and devise their own solution because their job demands that they make decisions and take actions" (Atkin 1989), this kind of activity has been considered "marginal to the research and scholarly enterprise" (Atkin 1989). One of the specific intentions of this research is to describe and value the teacher's expertise in fostering the development of the children's literary competencies particularly in the area of non-fiction.

Thirdly, the children were considered to be reliable and useful informants about their own learning and behaviour.

Finally, this investigation can contribute to understandings about teaching and research through the insights it provides about the innovations one teacher has developed as she uses Shared Book Experience to teach six-year-olds how to read and use non-fiction. It also provides insights into young children's development as non-fiction readers and writers - an

aspect of children's literacy development which is gaining greater attention from researchers.

CHAPTER 4: THE INSTRUCTIONAL CONTEXT

> "... the question of how we come to know is in large, a part of a question of how one learns from and with other people, for it is through interactions with people in educational contexts that we acquire a notion of what will count as knowing...." (Freebody 1989 p.330)

In the classroom study that forms the basis of this research report the children came to know, through their interactions with the teacher, the books and their peers, what it is to be readers and writers of non-fiction.

This chapter provides information about some features of the context for learning which the teacher created through Shared Book Experience sessions. The focus is on what the teacher did in these sessions to foster children's learning.

Understanding what the teacher does is essential because the teacher influences the opportunities which children have for learning (Alverman 1989). The teacher is an active agent in fostering children's literacy development. A teacher does not "put children in a garden of print and leave them unmolested" (K & Y Goodman 1979), rather s/he actively characterises what it means to be a reader and writer in the course of her/his activity with children (Baker:forthcoming).

This chapter provides an analysis of one classroom teacher's behaviour during a series of non-fiction Shared Book sessions with a class of year one children. This teacher, Sue Hoare, provided children with experience in seeing, hearing and using non-fiction big books. To facilitate children's development as readers and writers, Sue had to achieve a range of aims.

Her stated aims were to:

- develop children's interest in non-fiction
- have the children read and use non-fiction texts in the Shared Book sessions and in independent activities
- expand children's vocabulary
- help children to understand the different ways that information can be presented such as charts, diagrams, tables, illustration, photographs; and
- explore the conventions of print

The Shared Book sessions and follow-up activities were a means of achieving these aims.

Typically, the setting for Shared Book sessions is one where the teacher places the big book on an easel and groups the children around it, usually on the floor, so that they can all see the print and hear what is being said. Over the term in which this study was undertaken, Sue conducted thirteen Shared Book sessions with her class using non-fiction material. Each session was about thirty minutes long and was immediately followed by an activity. The data on these sessions, such as field notes of the teacher's questions, the teacher's journal and a video tape of one session, were analysed to discover any patterns in how Sue behaved across the lessons.

From this analysis the following categories emerged as a framework for describing the teacher's behaviour.

- helping children to learn from non-fiction books
- helping children to locate information
- dealing with the language of non-fiction
- interpreting illustrative material
- extending children's understandings of print conventions
- setting follow-up tasks

A discussion of each of these categories and examples of what Sue actually did follows.

4.1 HELPING CHILDREN TO LEARN FROM NON-FICTION TEXTS

In each of the Shared Book sessions, Sue's focus was on engaging children in a process which challenged them to think and to extend their understanding about the world. In other words, Sue wanted the children to learn from the books.

Sue recognised that the children in her class were learners who already had information about the world. Whenever she began a new book with the children, or came across a concept or term she thought they could explore, she began by asking the children what they already knew about it. Often she simply asked a direct question such as, "What do you already know about this?" On other occasions she asked more specific questions such as, "What animal do you know that has sharp claws?" This latter kind of question required the children to "dig into" their existing knowledge to select the animals they knew which had this particular characteristic.

This kind of interaction signalled to the children that they had an active part to play in making sense of text.

Helping children to actively interpret and construct meaning was also a feature of other kinds of interactions with the text that Sue facilitated. For example, Sue frequently asked the children to draw on their own experience to make predictions, at both global and local levels, about the content of the book they were dealing with at the time. When they began a new book, Sue asked the children to use the information available on the front cover and from the title to predict what they thought the book would be about and the kinds of information it might contain. These predictions were then checked as the teacher and the children read the text.

Sue's initial activity before she read one of the books, Book of Animal Records, best demonstrates the systematic way she challenged and supported the children to predict what they would find in the books. Sue gave the children cards with categories of animals such as largest animal, bird with the biggest nest, largest fish, and asked them to work in groups and write which animals they thought they would find in the category they were given. The children recorded their guesses and then came back to the whole class setting to check their predictions against the actual contents of the book.

On other occasions, Sue capitalised on the potential of the books, as in Animal Clues, to have the children attempt to make inferences about the identity of animals from evidence in the text. The Animal Clues book was constructed as a game which required readers to examine the clues provided in the text and in the photographs (of one small part of the

animal) and to infer which animal it actually was. Sue provided the time and opportunity for the children to work out from these clues what the creature might be and challenged them to check their ideas against the information available.

Sue also invited them to infer from the text and photographs other information beyond what was required to play the game the author had constructed. For instance, she asked questions such as, "What do you think it [the animal in the picture] would feel like if you touched it?" She also encouraged the children to make inferences about the function of parts of the animals by asking questions such as, "What do you think the hooks are for?"

A great many of Sue's questions encouraged the children to give reasoned responses and explanations about the meaning of information in the books. One example of this occurred when the children and Sue were reading about an Australian dinosaur, Paracyclotosaurus, in Prehistoric Giants. One of the items of information they read about this creature in the check-list, concerned the place where it was found. The following transcript reveals the way in which Sue tried to help the children think about the kind of evidence which is necessary to support the claim that Paracyclotosaurus lived in St. Peters, NSW:

Sue: *It comes from St. Peters which is a place in NSW. How do you think they know it lived there? It does not live there today, so how do you think they know?*

Troy: *They'd just go and look there.*

Sue: *What would they find when they looked? They wouldn't find this animal now, because it was a long time ago.*

Troy: *I know how they did it. Like in books ... like some people draw very well except that ... there was a long time ... their teachers told them about it.*

Sue: *There may not have been people alive then. So how would they know this animal lived there?*

Damien: *Because the bones ...*

Troy: *Bones in the wood ...*

Sue: *Just a minute.*

Damien: *Their bones, when you dig in the rock ... cement like rock ... you dig and there's bones in them ....*

Sue: *Right they might have found the bones. There's another name for those bones.*

Sandra: *Skull.*

Sue: *The might have found the skull, yes. I was thinking of another word starting with "f".*

Troy: *Fish?*

Sue: *Someone brought some earlier in the year. Hayley, I think it was you.*

Hayley: *Fossil.*

Sue: *Yes.*

Although on the surface, the latter section may look like the teacher was participating in the "guess what's in my head" type of activity, it can also be understood as an attempt to make connections with a previous classroom experience that she knows the children have shared. The following are further examples of Sue's questions which invite the children to give their explanations about things and provide reasons for their responses.

Why is it this colour and not red or yellow?

Why would it want to be camouflaged?

What does it use these claws for?

Why are the weevils brown in colour?

Why does the butterfly lay the eggs on the underside of the leaf?

Why do you think they say "may" have a trunk?

Fiona, how did you know it was a star fish?

Sue also supported the children in their learning by posing problems which required them to make connections between different items of information. Some of these problems required the children to apply the information they had learned. For example, Sue reminded the children that butterflies cannot use their wings when it is colder than 20°C. They had read this earlier in Life of a Butterfly. Sue then told the children the estimated maximum for the day was 16°C and asked them whether they would expect to see butterflies out today. Sue gave the children two pieces of information and challenged them to use them to predict the likelihood of an event. Thus Sue is helping the children to use syllogistic reasoning to draw a conclusion from a general premise and a specific fact.

Other problems she presented required the children to use existing information in the text to generate new information. Two instances of this kind of problem occurred when she asked the children the following questions. "If a caterpillar has eight legs on each side of its body, how many does it have altogether?" "If there are nine spiracles on each side, how many are there altogether?" Both questions demanded that the children use arithmetic skills to work out the answer and to thus create new information. These sorts of problems are common in many non-fiction texts. The important message for children here is that the information they find in books can be used to solve problems, and that these problems

require them to be actively involved in drawing on and integrating knowledge and skills from a variety of sources and experiences.

Opportunities were created to help the children to understand abstract information by translating it into more concrete terms. Where the books provided information about height, length, appearance etc., about an animal but did not provide a concrete means of conceptualising this information, Sue usually provided concrete demonstrations or examples. For example, Sue used two one metre long blackboard rulers to help the children understand the statement that the kangaroo was more than two metres long from head to tail. When the children read that animals are 2.0 metres or 1.5 metres long it will not mean anything unless they have a concept of what a metre is. Similarly, children needed help to understand comparative terms such as tall, taller, tallest. Again, Sue provided this in the form of a concrete demonstration where she lined up three children of differing height and asked the class to work out who was the tallest.

Throughout each of the sessions, Sue always demonstrated an expectation that the children could and would learn through their engagement with information. At the beginning of sessions when they were continuing to use the same book, Sue always began by asking the children what they remembered from the previous session. This is an example of helping children to mobilise the knowledge they already have. Similarly, Sue also encouraged children to draw on previous knowledge but to apply it in new situations with different books. For instance, the children had encountered the concept of habitat in Large Marsupial and Small Marsupial, so when it appeared in Prehistoric Giants, Sue reminded the children that they had seen the word before, and asked them what it meant. Similarly, when

they came across the term marsupials in Prehistoric Giants, Sue asked the children, "What do we know about marsupials?" and "Where did we learn about marsupials?"

Throughout the sessions, Sue took time to have the children stop and recall what they had learned. For instance, halfway through one of the books on marsupials Sue asked the children to reiterate the characteristics of marsupials. Sue helped children to remember information during the session and also took time to have children summarise information at the end of the session.

The children's interactions with the texts were initiated and sustained by their engagement with the information which their teacher helped to interpret and construct in satisfying ways. She created an environment where the children could collectively contribute to and participate in the articulation of their current understandings about the topic and where they could construct meanings by relating what they knew to the information presented in the books. Most of the teacher's actions here are illustrative of Goodman's (1970) idea that the "development of reading competence is best achieved when the student's focus is on the content of the material and not on the reading itself".

4.2 HELPING CHILDREN TO LOCATE INFORMATION

Sue devoted time to helping the children understand the organisational features of non-fiction texts such as the contents, index, headings, page numbers. Where appropriate Sue encouraged the children to decide on the information they wanted to know and guided them by explaining and demonstrating how to find it.

For example, after Sue read the colour-coded contents in The Book of Animal Records and had the children explain what the colours meant, Sue then asked them to decide which record they wanted to find out about first. She asked them how they would find it, so they had to explain the relationship between the entry and the page number. As the children found the pages they wanted, Sue drew their attention to the headings which were also colour coded. She simply asked the question, "What do you notice about the heading?" and guided them to see the relationship between the colour-coded contents and the colour-coded headings.

Where appropriate, Sue asked the children to read selectively, so that they rarely read the books from cover to cover. She guided the children to find the information they wanted or challenged them to do it for themselves. Sue and the children moved backwards and forwards between the contents and the pages of the books so the children could follow their interests.

By asking the children to choose the information they wanted to read, from the contents, Sue demonstrated a difference in the way readers use non-fiction as opposed to fiction. She showed them that non-fiction does not necessarily have to be read sequentially from the front to back of the book.

The children also participated in demonstrations of how to read and use an index to locate specific information. Again, Sue demonstrated how to do this and then invited the children to try it themselves by selecting the entry they wanted to locate or by responding to the one Sue had selected. They were required to state the page number and to explain and demonstrate how to locate the page. Sue consistently reminded them that the entries

in the index were in alphabetical order. The following is one example of how Sue drew children's attention to the alphabetic order of the index.

Sue: *Look at the start of these words* [running her finger down the first letter]. *What do you notice?*

Child: *It's like a dictionary.*

Sue: *What kind of order are these words in?*

Child: *Alphabet*

When Sue gave a demonstration of how to locate information using either the contents or the index she approximated where the page might be by turning pages over in chunks rather than looking at each page number. Sometimes after she had found the page number for what they wanted to look up, Sue asked the children whether it would be the front of the book or at the back of the book. Hence she tried to show the children how efficient readers located pages in books.

4.3 DEALING WITH THE LANGUAGE OF NON-FICTION

There were a number of occasions when Sue realised that the children needed explanations of key words. For instance, use of the word "record" in the title The Book of Animal Records challenged the children because they only associated "record" with music. They were unfamiliar with the different meaning which relates to attainments. Sue also explained words such as "predator" because it was unfamiliar to the children, and they could not work it out from the context.

However, on other occasions Sue actively encouraged the children to explore the particular meanings of words and phrases for themselves. The following are examples of questions she asked:

What is an amphibian?

What is a giant? What is another word for giant?

What does "food is scarce" mean?

Can you think of another word for "frightening"?

What is one word you could say instead of "how to use/read this book?

What is a diary?

What do you think "emerges" means?

What do you think "Mystery Fact" might mean?

What do you think "ready to take off" might mean?

What is another word for midday? Another word that starts with "M"?

What does shelter mean?

Where books contained glossaries, Sue explained their function and showed children how to find definitions of words used in the text.

The other aspects of language Sue focused on were the terms which described various parts of the book such as cover, title page as well as terms like illustrator and author, and labels for organisational features, such as contents, index, glossary, headings, page numbers etc. Hence children were not only introduced to the specific vocabulary which related to the subject matter of the books but they could talk also about the books themselves.

4.4 INTERPRETING ILLUSTRATIVE MATERIAL

The books which Sue presented to the children contained a variety of illustrative material such as photographs, comparative charts, drawings, maps, labelled diagrams and scale diagrams. These are a potentially rich source of information especially for young readers who may rely more on the illustrative material than on the print. Although the children knew how to interpret and use illustrative material in fiction texts, their teacher understood that this kind of material in non-fiction presents children with different sorts of challenges.

Sue seemed to have a real "knack" for taking the children's perspective, understanding their needs and giving instructions which helped children explore things which are self-evident to experienced adult readers. Her insights into children's needs were amply illustrated by the way in which she approached the excellent photographic material in the books. Even though the children were immediately drawn to the frequently spectacular colour photographs, Sue challenged them to go beyond a superficial perusal of them and to really "mine" them for information. The following questions are indicative of the way she challenged them to become more astute observers:

> *What do you notice about the front pair of wings and the back pair?*
> *What did you notice about the Dunnart's footprints compared to those of the Bandicoot?*
> *What is the difference between the kangaroos in these two photographs?*
> *What do you notice about this animal?*
> *What else did you notice?*

What did you notice about its legs ... its eye ... its tongue?

Karl, what do you notice about its skin? Can you give me some describing words?

What do you think happened to this part of the leaf? [pointing to section of the leaf which has been chewed]

What do you think this is? [pointing to the stem of the leaf on which the caterpillar is crawling]

What are these caterpillars on?

What are all these lines on the leaf?

In these questions Sue not only challenged the children to pick up more detail from the photographs, but she asked them to describe what they saw and to extend their thinking by making comparisons between things.

A further challenge inherent within the photographs arose from the fact that they did not represent the actual size of the things which had been photographed. Sue frequently asked the children whether they thought the photographs showed the real size of the animal. She particularly spent time helping children to understand the concept of magnification, since many of the photographs were enlarged. When Sue first asked the question, "What do we call it when we take a photograph and make it bigger?" the children said that we blow it up. Sue then introduced the term enlarged. On other occasions, she asked the children why they thought the publishers made the photographs as big as they did. Another tactic she used to help children understand the relationship between actual size and the photograph was to ask them to show with their hands how big they thought the animals actually were. In one example of this, when the children were looking at the photograph on the front cover of Small

Marsupials, Sue directed the children's attention not only to the animal, but to the size of the gum flowers in the photograph. The children knew how large gum flowers are because they see them all the time. The teacher then tried to help them to work out the relative size of the creature.

Sue not only raised the children's awareness and understanding of the relationship between photographs and the actual objects, but also helped the children to understand the differences between photographs and realistic drawings and why one would be used instead of the other. One of the most interesting examples can be seen in the following transcript where Sue guided the children through a process of reasoning to determine why the illustrations of dinosaurs could not be photographs of the actual animals.

Sue:	*Do you think this is a photograph or a drawing?* [pointing to illustration of dinosaur on front cover of book].
Children:	[inaudible responses].
Sue:	*Put up your hands if you think it is a painting or a drawing* [about a third of the class raised their hands].
Troy:	*It's a drawing and then they took a photograph of it.*
Sue:	*That's very clever Troy - they've taken a photograph of the drawing. Troy, do you think it was a drawing in the first place?*
Troy:	*The background looks like a drawing and the front ground looks like a photo.*
Sue:	*Perhaps we ...* [inaudible] *Damien?*
Damien:	*They ... people ... wouldn't be alive then to take the photo.*
Sue:	*Why did you assume people wouldn't be alive?*
Damien:	*Because it was prehistoric times.*
Sue:	*Damien, could you just repeat that in a really loud voice so everyone can hear?*

Damien: *Uhm! The Prehistoric Giants ... it's a drawing because no-one was alive to take the photo because it was a long time ago.*

Troy: *There was only cavemen.*

Sue: *Prehistoric means it was a long, long time ago. Long before your parents or your grandparents were alive....*

Troy: *God was alive then wasn't he?*

In this example Sue is trying to help the children to relate different pieces of information to provide a logical explanation for the use of drawings in this book.

Sue used similar kinds of questions to enable children to interpret and understand the information presented through other forms of illustrative material such as scale diagrams, comparative charts, diagrams and sophisticated combinations of legends, diagrams and photographs. The way Sue went about helping the children to interpret these demonstrated her understanding of the need to make the abstract concrete in the same way as she had done earlier with print based information. For instance, after they had examined a diagram of a kangaroo's footprints, Sue had the children assume the position which the kangaroo was in that made this configuration of prints possible. Similarly, she had six children come out and stand fingertip to fingertip to provide an idea of the size of the white pointer shark as depicted in Fig 1.

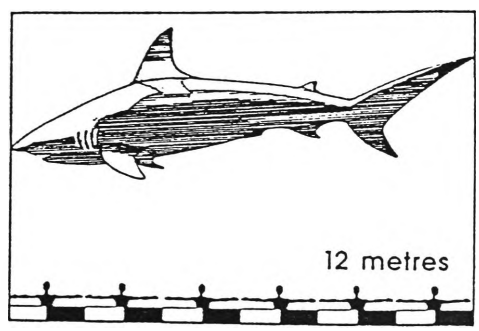


Fig 1

The looks of amazement on the children's faces indicated that they had begun to grasp the concept of the size of the White Pointer Shark.

Other quite complex size relationships were found in Prehistoric Giants, where a silhouette of the dinosaur was placed in a grid of squares, which each represented 1 square metre. Some of these also included a silhouette of a human figure which represented the average height of a male human. With these, Sue used the black board rulers to show the height of the human (e.g. two metres) and then helped the children to work out the relative height of the dinosaur. Later she explained that the squares each represented one metre so that the children could count them to work out the length and height of the creatures.

It is apparent from the few examples presented in this section that Sue played a vital role in helping the children to interpret the meanings of the illustrative material which were explored through non-fiction books. Her intimate day to day knowledge of the children enabled her to help the children to make connections between the subject matter of the books and their own experience of the world.

4.5 EXTENDING THE CHILDREN'S UNDERSTANDINGS OF PRINT CONVENTIONS

Sue clearly understood that the children's exposure to big books presented many opportunities for them to extend their understanding of print conventions such as punctuation and spelling. In each of the books, Sue drew the children's attention to punctuation marks such as full stops and question marks and to the use of capital letters. For example, she asked direct questions which invited the children to explain:

- why the author used capital letters at the beginning of words in the titles of the books
- why capital letters were used for the names of places, author's names, animals names in headings
- the use of capital letters and fullstops for abbreviations for names of Australian states like WA, NSW, SA; and
- the use of question marks

The children were also invited to attempt different levels of analysis of visual patterns and letter/sound relationships in words. Sue asked the children:

> *Can you tell me about the words Mystery & Monsters? What letter do they start with?*
> *Wombats and Wallabies - what letter do they start with?*
> *What do you notice about the word knobbly?*
> *Who thinks they can tell me which word is the longest here - caterpillar, expected, something, whenever?*
> *What other words have the "ee" sound like this one [week]?*
> *What can you tell me about changed, expected and decided?*
> *Can you find a small word in the word grasshopper?*

Through these kinds of questions, Sue gave the children opportunities to demonstrate what they knew about letters, their understandings of letter sound relationships, their knowledge of visual patterns in words, their ability to analyse words, and to engage in some sophisticated metalinguistic analysis.

4.6 SETTING FOLLOW-UP TASKS

Usually, Sue set some kind of follow-up tasks after sharing the non-fiction big books.

Most of these tasks invited the children to reflect on what they had heard, seen and read in the sessions and to make choices about what in particular interested them or presented new information that they did not know before. These kinds of tasks created an expectation that the children would learn something each time they read and that they could have opinions not only about what they read, but also about the books themselves.

The following is a list of tasks which Sue gave for each of the books:

Task 1 - Book of Animal Records

Children were asked to write something they learnt during the Shared Book session.

Task 2 - Book of Animal Records

Children were asked to write about what they thought was the most interesting thing about the book

Task 3 - Large Marsupials

Children had to draw either a kangaroo, a quail or a Tasmanian devil.

Task 4 - Large Marsupials

Children were asked to write about one of the following; what they remembered, what they found interesting, what they learnt, or what they liked about the book.

Task 5 - Small Marsupials

Children had to choose an animal they liked to draw and write about. They were also asked to remember what colours the animals were.

Task 6 - Prehistoric Giants

Children could write about the animal they found most interesting or one that they did not know about.

Task 7 - Prehistoric Giants

Children could do whatever they liked or they could:

- write all the things they had learnt
- write about the animal they liked best from this session
- make a plasticine model of the animal they liked best

Task 8 - Animal Clues

The children had to choose an animal and then select two parts. They had to give two clues about the animal and one clue about where it lived. On a new sheet of paper, they had to draw a picture of the whole animal and write its name. They had to choose one that was not in the book, but they had to use the pattern of the book as a model for the kinds of information they had to provide.

Task 9 - Mystery Monsters

Children were given a piece of paper which they had to fold in half. At the top, they had to write where the animal they chose could be found. Then they had to draw a part of the animal and give some clues. Underneath the sheet, they had to draw the whole animal and write its name.

Task 10 - Caterpillar Diary

Children could choose whether they wrote about what they learnt from the book.

Task 11 - Caterpillar Diary

The children had a choice in this task:

> The children had to make a moth using tissue paper and pipe cleaners or they could
> try to draw the life cycle of the moth (without looking at the book).
> Most children worked in small groups on this task.

Task 12 - Life of the Butterfly

Children were told they could do anything they liked about this book, it was up to them to decide. They had to see how much they could do without the book. Sue then gave them the following questions which they could answer if they wanted to:

> *How does it get the nectar?*
> *What does it do with its proboscis when it flies?*

4.7 DISCUSSION

In talking about writing, Spencer (1983) states "teaching consists in arranging things so that the appropriate kinds of thinking occur" (quoted in Barr 1985, p.105). The same can also be said about teaching non-fiction reading. That is, the teacher's instruction needs to encourage children to do the kinds of thinking (such as predicting, interpreting, connecting, relating, comparing) that are necessary for the construction of meaning and for learning.

The data showed that Sue's instruction created many opportunities for children to learn information, to learn how to read-to-learn and to learn how to think. It is clear too that there was congruence between Sue's stated aims for using non-fiction big books, and her practice in the classroom. Her teaching in these sessions was deliberate since she knew what she wanted to achieve. However, she was doing a great deal more than her aims indicated. For instance, Sue valued the children as learners and consistently helped them to mobilise what they currently knew and to make connections with new information and/or to modify their existing understandings. Her focus was on the process of grappling with information rather than on teaching non-fiction reading skills out of context. In other words, she knew that the force which drives children to acquire new skills as readers comes from their engagement with ideas which interest and challenge them, and that reading skills are acquired to serve the children's interests. So the children's involvement with the books was purposeful.

Sue also expected that the children could and would learn from their interactions with the big books. However, she did not fall into the trap of expecting children to be independent learners before they began instruction (Singer & Donlan 1980). Rather she seemed to understand the Vygotskian concept of working in the zone of proximal development as expressed by Moll (1986) in the following:

> "Children's literacy development is fostered when they engage in literacy activities that require them to go beyond what they are already capable of doing by themselves."

Her instruction in the Shared Book sessions challenged all the children in her class and helped them to move gradually towards independent reading of the books.

Another feature of Sue's instruction was that she was inducting children into the world of systematic thought. Through reading the books with the children and helping them to understand the concepts, the language and the relationships expressed in them, Sue helped the children understand more about the various ways of knowing the world that are signalled through different disciplines and genres. Derewianka (1990) suggests that this is one of the fundamental functions of schooling and instruction.

> "One of the functions of school in our culture is to take children beyond the personal, commonsense world of particular instances into new worlds of generalised phenomena - plants, animals, societies, land masses, mathematical operations, historical eras, weather patterns. The child's random knowledge becomes organised into discrete disciplines such as biology, history, chemistry, geography and maths. The child becomes an apprentice biologist, an apprentice historian, an apprentice chemist - inducted into the various ways of knowing about the world. The apprentice makes hypotheses, collects and analyses data, compares and contrasts, generalises, classifies and draws conclusions. The child's learning is formalised and systematised into different ways of knowing valued in our society and necessary for full participation in it". (p. 55)

Reading non-fiction plays a major role in the development of children's understanding of the world. Donaldson (1988) suggests that literacy can advance the search for understanding by enabling us "to learn from people who we do not personally know" and by its "effect on thinking itself - especially on the ability to sustain thought and put thought into order". Sue's instruction with the big books helped and encouraged children to succeed in this enterprise.

Sue's work with the big books demonstrated that the techniques of Shared Book Experience can be adapted to teach non-fiction reading as successfully as it can be used to teach children to read fiction. Shared Book Experience enabled Sue to create one of the particular kinds of interactions which Smith (1984) says is necessary for literacy development - "apprenticeship or engagement with relevant demonstrations".

Through the Shared Book sessions, Sue provided demonstrations of what it means to be a non-fiction reader. Sue helped children to engage with new information and to interpret, relate and connect information from both the print and illustrative material to construct meanings. She encouraged them to predict, to check and to confirm or self correct their predictions. Sue also helped children to mobilise and re-shape their existing knowledge and to articulate their understandings.

Furthermore, she showed children how these books work so that, in time, they too will have the keys to help them unlock the world of non-fiction according to their own needs, interests and purposes. The important part of the Shared Book sessions is that they enable learners to see literacy behaviours in the actual context of their use. Holdaway (1979) states that the "central task of the teacher in a developmental program is to display and model literate behaviour as something both rewarding to do and possible to learn" (p. 129). It was certainly evident from the Shared Book sessions that children found their interaction with the books rewarding. The data in the following chapters indicates also that the children believed it was possible for them to learn to use non-fiction.

Sue's instruction through the Shared Book sessions seems to stand in stark contrast to Christie's (1988) perceptions about classroom literacy teaching.

> "... a great deal of childhood educational practice does appear to imply that they are incapable of being challenged to learn new and potentially demanding knowledge" (p. 131)

Hopefully the kinds of classroom practices being developed by pioneers such as Sue will contribute to the development of teachers who "take young learners seriously - who seek to challenge and extend them" (Christie 1988 p.133).

4.8 CONCLUSIONS

From the evidence of what Sue did in the sessions, it is possible to conclude that the techniques of Shared Book Experience can successfully be adapted to teach young children how to read non-fiction. Furthermore, Sue's behaviour suggests that teachers need to have quite deliberate aims which guide the way they conduct the Shared Book sessions. Clear aims can contribute to focused and effective instruction because the teacher is able to use the children's interests and to maximise opportunities to help them to develop their understandings and skills as non-fiction readers.

In her implementation of Shared Book, Sue provided conditions of developmental learning which Holdaway (1979, 1986) believes are essential. These are:

- that the teacher provides an atmosphere of faith and trust

- that the teacher provides an emulative environment in which s/he displays "the genuine utility of the skill" (1986 p. 42)

- that the shared satisfactions created through interaction with texts provide powerful rewards which are intrinsic and meaning centred; and

- that the learning environment is "free from competition, criticism and constant correction" (quoted in Parkes 1982, p. 815)

CHAPTER 5: CHILDREN'S UNDERSTANDINGS OF THE FEATURES OF NON-FICTION TEXTS

This chapter focuses on the children's written products as windows on their understandings about such features of non-fiction texts as content, organisation, language and illustrative devices. These features provide an analytic framework for explaining the children's understandings of non-fiction texts, but they have not been used to organise this chapter. A decision was made to foreground the children's products and the writing tasks which Sue set so that the context, in which the children wrote is clear, and so that their products are readily accessible to readers of this chapter, and to allow them to make their own analysis and interpretations. The children's achievements as non-fiction users are more readily understandable when their pieces are discussed in relation to the task set.

The first part of the chapter is organised on the basis of the tasks the children were given in the writing episodes which usually followed the Shared Book Experience sessions. The task and the task demands are explained and an analysis and interpretation of the children's writing follows. The examples of writing have been selected from the whole class rather than from the six children who were the informants for the following chapter on reading.

The second part of the chapter presents a short case-study of one of the research informants to show her development and growing competence as a non-fiction writer.

The findings which emerge from the writing episodes presented in this chapter, reveal that the young children in Sue's classroom understood a great deal about the features of non-fiction texts and could apply these understandings to the construction of their own non-fiction texts. The books which the children read in the Shared Book sessions appeared to be a strong and valuable source of information about the options which writers use to construct non-fiction texts, as well as rich source of information about a variety of topics.

It should be noted that these books were specially produced for use with young children. The non-fiction big books were designed to mirror the devices, organisation, language and content usually found in non-fiction text for adults. For example, through these books the children were introduced to scientific vocabulary, scale diagrams, charts, tables, photographs, drawings, diagrams and accompanying legends, contents, indexes, glossaries, colour coding, headings and sub headings. These books did not patronise young readers with obvious statements such as "giraffes have long necks", or inaccurate statements such as "fish like to swim". Nor did the books confuse children by using a narrative format to provide information. Because these were "real" books they provided appropriate demonstrations of the features of non-fiction texts and thus had the potential to help young children develop appropriate understandings about non-fiction.

5.1 THE WRITING EPISODES

The Shared Book sessions were usually followed by a written activity of some kind. The children were highly motivated during the Shared reading and discussion of the non-fiction books because they talked about the natural world and their own theories and discoveries. Their animation and energy carried over into their writing. They wrote with authority, confident in their grasp of information.

Most of the tasks set by the teacher during these writing episodes were open ended rather than specifically focused. They usually invited the children to reflect on and write about what they had learned or found interesting during the Shared Book sessions.

Task A: Writing About A Known Animal

In one writing episode Sue gave the children an opportunity to write information on an animal of their own choice. The animal had to be one not written about in the books they had read. The children were put into groups of three to collaboratively carry out the task.

This task demanded that each group of three make the following decisions:

- which animal they would write about;
- what information they would include;
- whether they had enough information already or whether they needed to find out more;
- how they would present their information on the large piece of paper provided.

The written products of four groups were selected for analysis because they demonstrate that the children appear to have easily identified some of

the complex ways of organising and presenting information that they have been exposed to through their interaction with texts.

Alicia, Karl and Kathryn decided to write about penguins (See Fig 2). These children are inexperienced readers and writers, yet their writing shows that they adopted alternative ways of presenting information. Rather than writing in sentence form, they have attempted to chart basic information in the same ways as the books they had read. (See Fig 3)

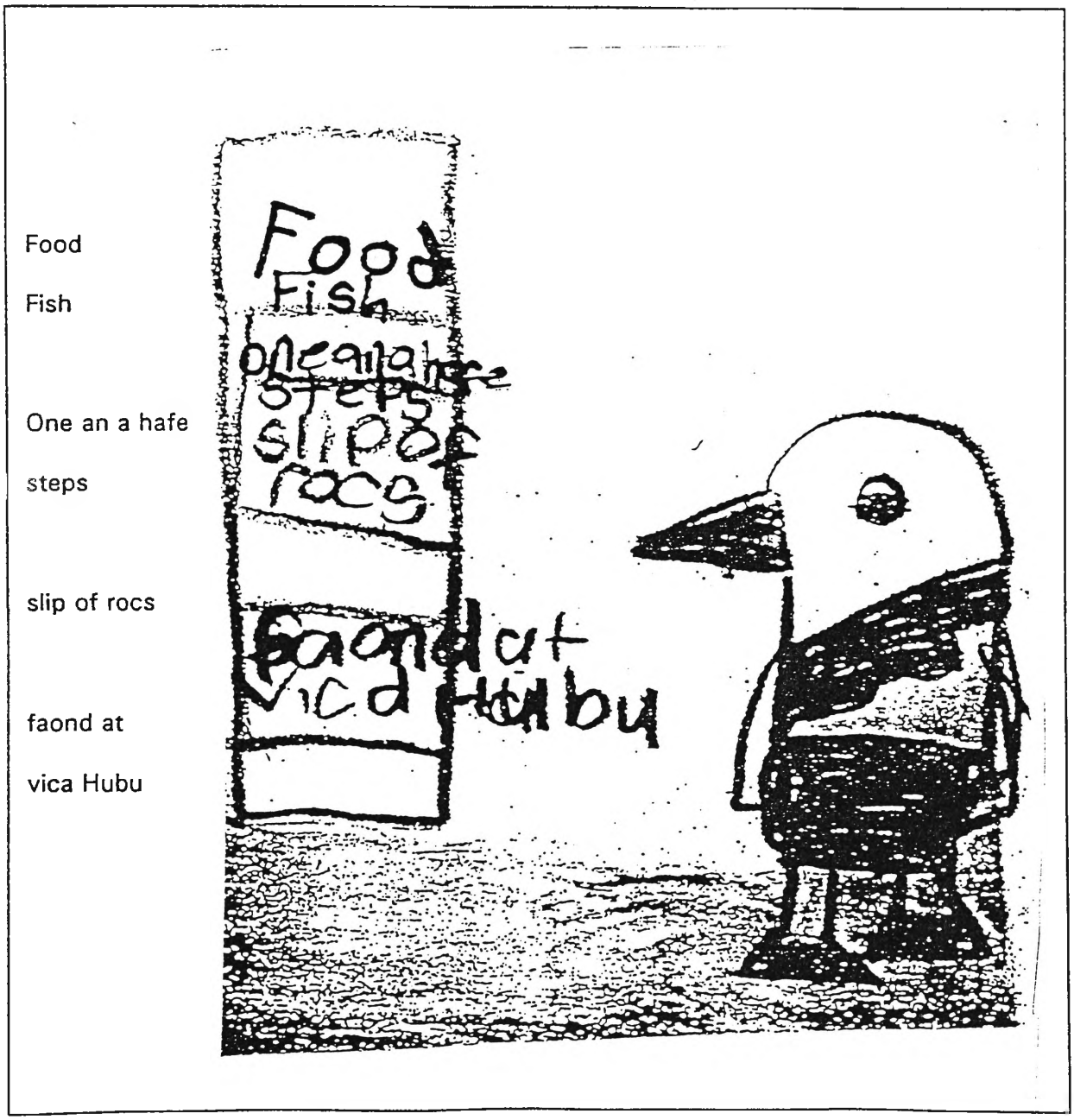
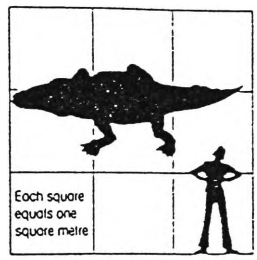


Fig 2

This is quite an achievement for children who are still learning about handwriting and spelling. The children have been able to see the usefulness of this layout and to explore categories of information, such as food, habitat, size and characteristics.

Fig 3



Checklist
Full name Paracyclotosaurus davidi
Pronunciation Parra-sy-cloto-saw-rus
Size 2·8 metres long
Habitat lakes and rivers
Food fish, other amphibians
Found at St Peters (Sydney), NSW
Lived 200 million years ago
Living relatives frogs and salamanders

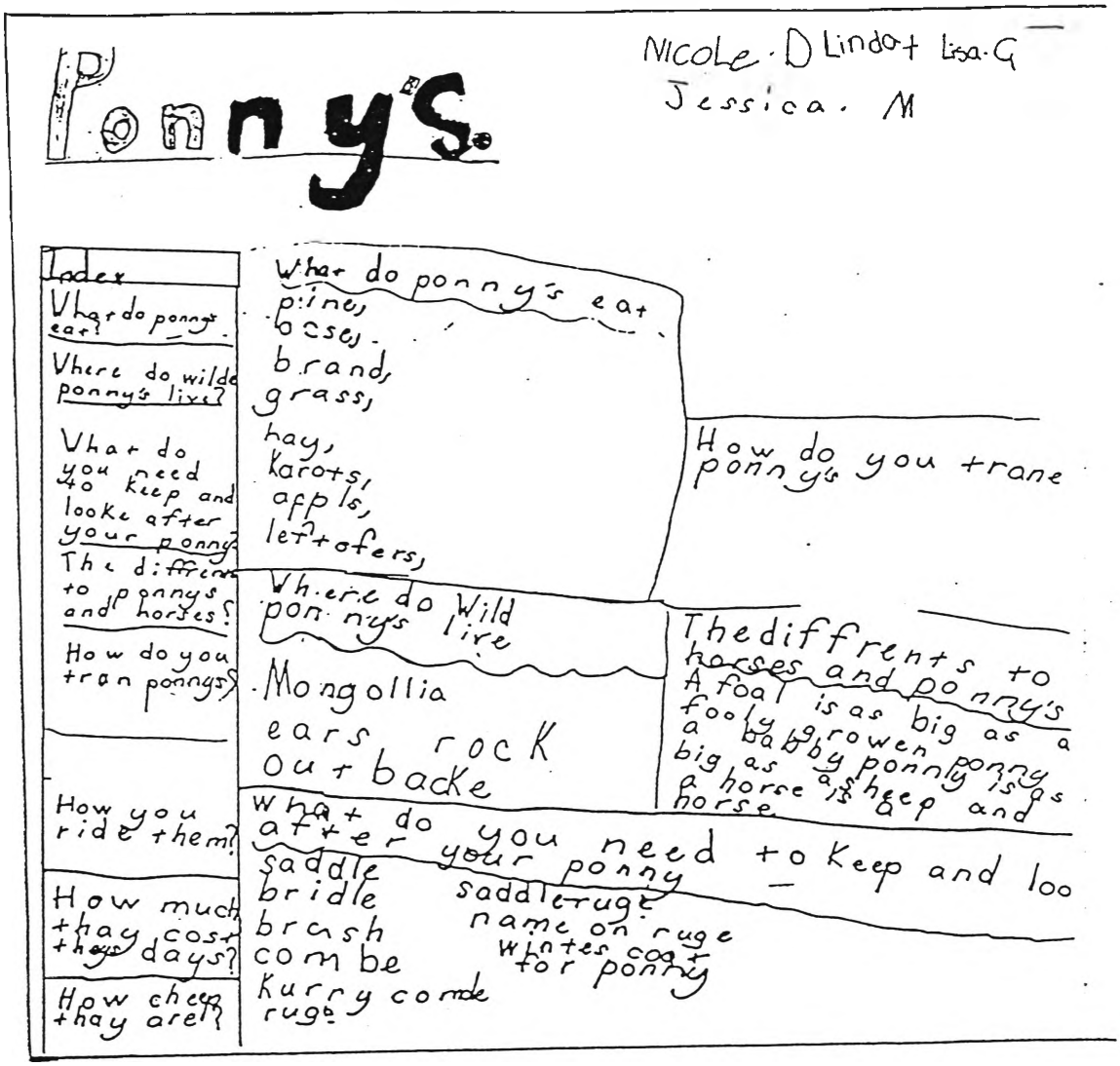
They attempt to convey the size of the penguin in very concrete terms i.e. "one and a half steps". They also draw on their own, albeit limited knowledge, when they indicate that the penguin can be found at Victor Harbor, which is a coastal town to the south of the city. These three

children have begun to understand different functions and ways of organising text. Their reading provides options that assist them as writers.

Nichole, Linda, Lisa and Jessica chose to write about ponies (Fig 4). Jessica proved to be an expert on horses. The children's expertise is evident not only in their ability to shape and organise their knowledge into different questions but also in the language they use, such as curry-comb, saddle-rug, bridle, oats, bran, hay, foal, pony.

The group's writing shows a number of text features the children have learned about in their reading of the big books. They use an index, lists, headings and questions to organise different kinds of information. In the writing itself, they struggle to explore a powerful informational style of writing. This can be seen in their attempt to explain the relative height of ponies in the following "the difference to horses and pony's. A foal is as big as fooly growen ponny and a babby ponny is as big as a sheep and horse is a horse."

It is not clear whether their statement that a "horse is a horse" means they are grappling with concepts that almost dangle out of their reach or whether they have simply used the horse as a standard measure because they know how big it is. Irrespective of the particular interpretation, it is obvious that these children understood that non-fiction writers can use comparison and contrast to provide a clearer explanation of concepts such as size.



Index

What do ponny's eat?

Where do wilde ponny's live?

What do you need to keep and looke after your ponny?

The diffrents to ponnys and horses?

How you ride them?

How much thay cost theys days?

How cheep they are?

What do ponny's eat?
pine,
oase,
brand,
grass,
hay,
karots,
appls,
leftovers,

Where do wild ponny's live

Mongolia
ears rock
out backe

What do you need to keep and look after your ponny

saddle
bridle
brush
combe
kurry combe
rug

saddleruge
name on ruges
wintes coat
for ponny

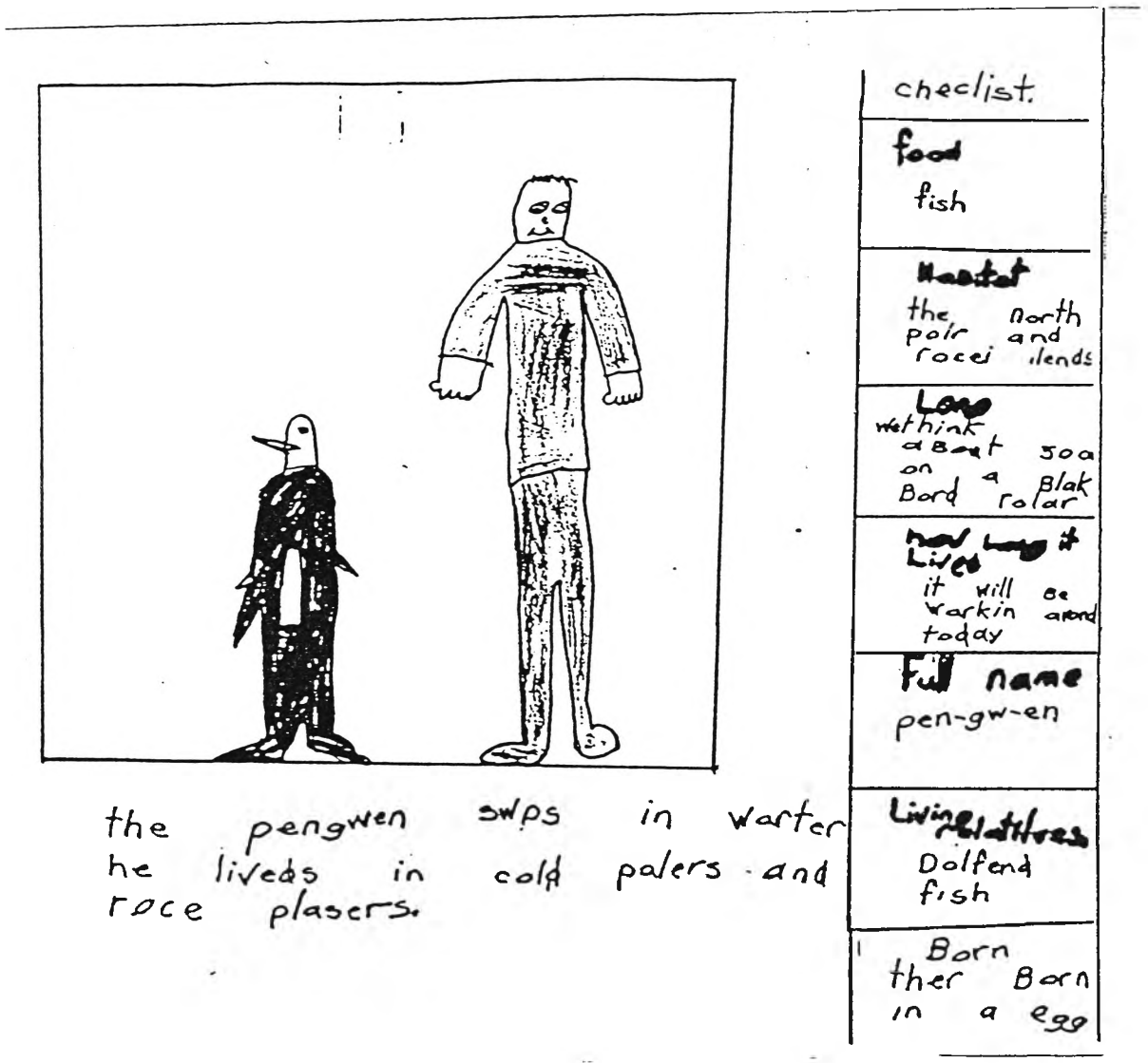
How do you trane ponny's

The diffrents to horses and ponny's

A foal is as big as a fooly growen ponny
a babby ponny
is as big as a sheep
and a horse is a horse

Fig 4

Damien, Hayley and Sandra's group also chose to write about penguins. A comparison of the children's product (See Fig 5) with a page from Prehistoric Giants (See Fig 6) demonstrates how this model has influenced the ways they choose to present information. The model in Prehistoric Giants consists of four different ways of presenting information. For example, a realistic drawing of the dinosaur, a block of print, a scale diagram and a check-list.



Checklist
food
fish
Habitat
the north
polr and
rocei ilends
Long
we think
about 50 cms
on a blak
bord rolar
How long it
live
it will be
warkin arond
today
Full name
pen-gw-en
Living relatiless
Dolfend
fish
Born
ther Born
in a egg

The pengwen swps in warter he lives in cold palers and roce plasers.

Fig 5

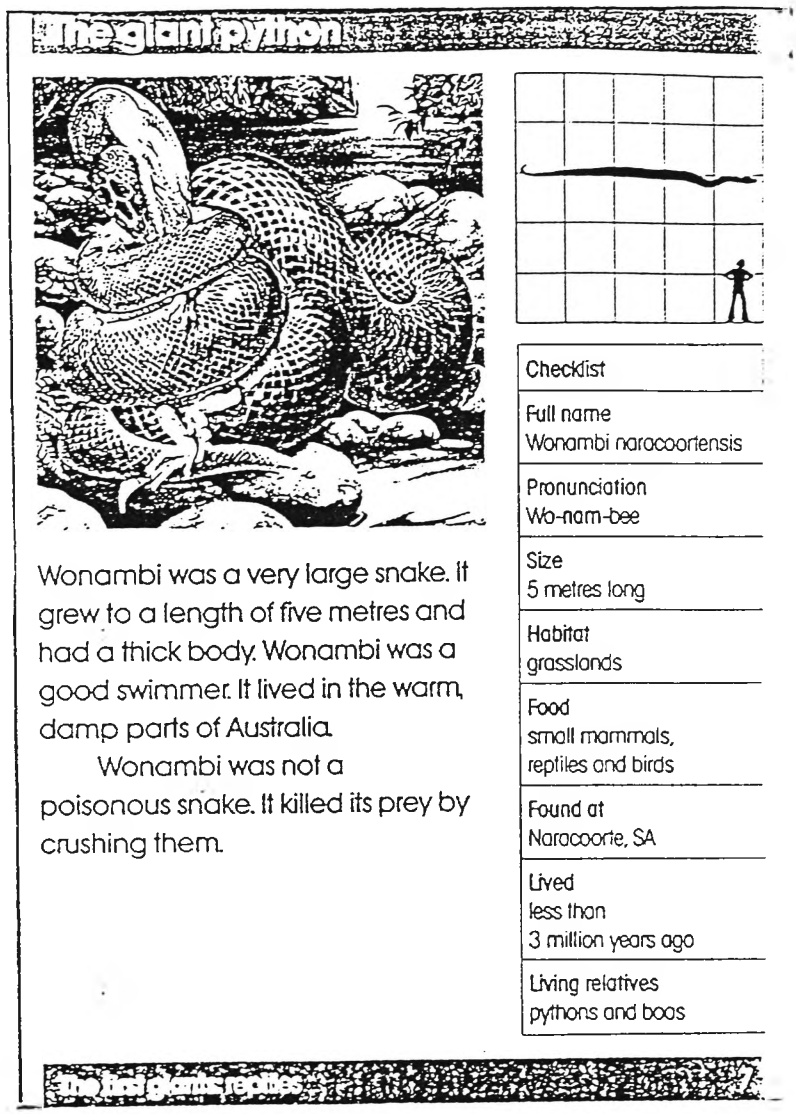


Fig 6

The children have drawn on this range of options to construct their own piece about penguins.

For example, they provide:

- a comparative chart to show the size of the penguin relative to a human figure;
- a check-list of particular categories of information; and
- a block of print under the picture.

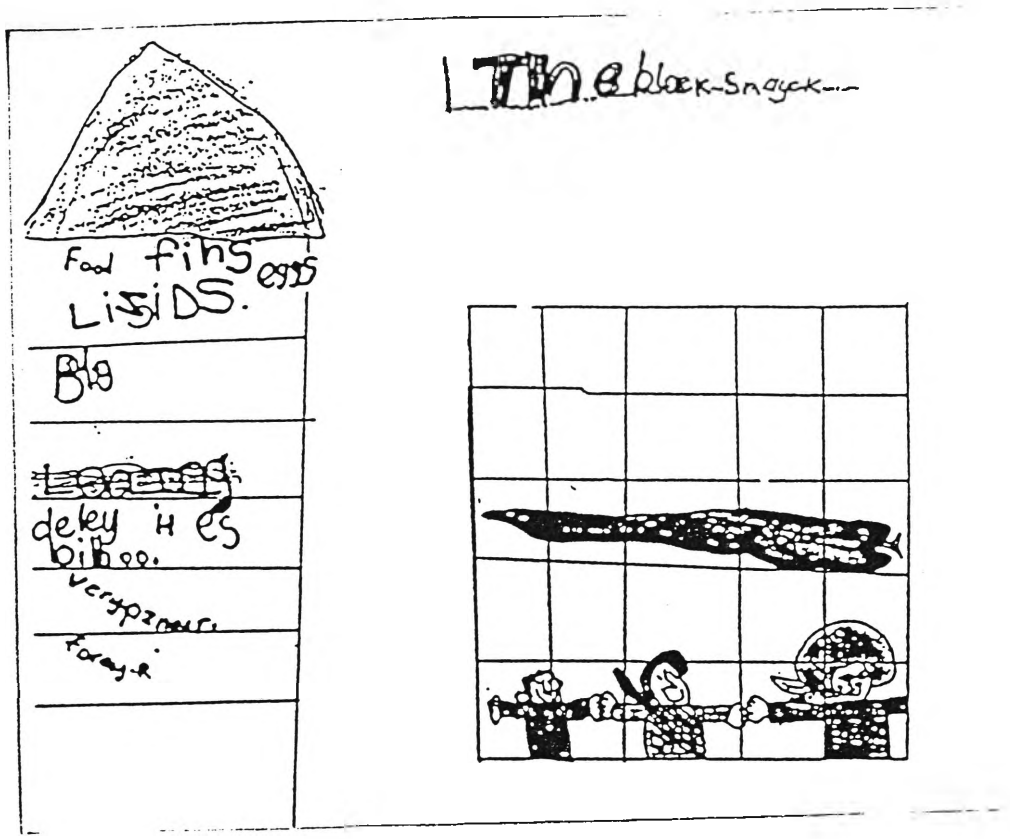
Some of the entries on the check-list are inappropriate for their topic since the penguin is not extinct as are the dinosaurs. For example, the two headings "how long it lived" and "living relatives" relate more to extinct rather than current animals as their statement "it will be workin around today" seems to indicate. However their other categories of information are quite appropriate as is the information they provide for each.

Their use of a scientific pronunciation guide, for example FULL NAME: pen-gw-en, demonstrates they can carry out metalinguistic processes.

Their check-list not only shows a good understanding of the terms they have read in the books, but also that the children can categorise and organise the information they have.

Their explanations show that they relate all information to their own experience and ways of knowing. For example, they describe the length of the penguin in the following way. "We think about 50 cm on a blak bord ruler". However, the fact they can give a height in centimetres and relate it back to the black board ruler means they can present the same information in an abstract and concrete form. Furthermore, they provide their readers with a comparative diagram to indicate the relative size of the penguin.

The last example (Fig 7) from another group is called the Black Snayck. The children appropriated an idea from <u>The Book of Animal Records</u> where the length of python was described in terms of the number of people stretched out holding hands (Fig 8). The children have used the same comparison visually to show the length of a black snake.



fihs
Food eggs
lizids
Big
deley it es biboo
(deadly it eats people)
very pznous
(very poisonous)

Fig 7

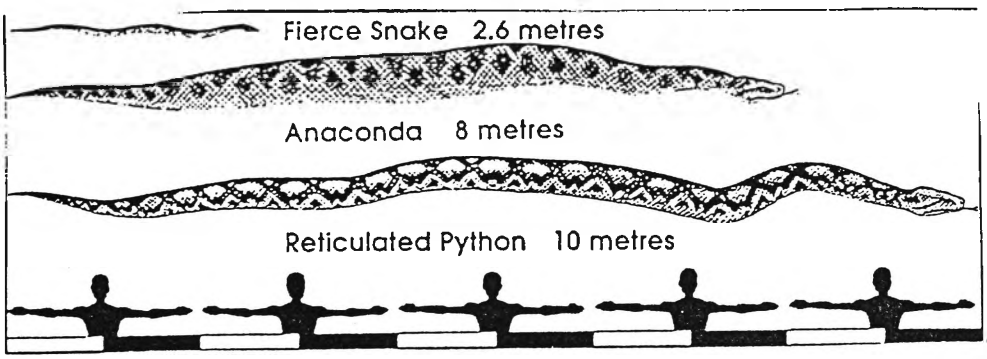


Fig 8

They also superimpose their visual comparison over a grid to approximate the kind of scale diagrams they have seen in Prehistoric Giants. This group of children was less successful than Damien, Hayley and Sandra in the construction and organisation of their check-list. They label one section - food, but leave it to their readers to determine the other categories of information. They provide other information about the Black Snake which appears contradictory e.g. "deley it es pilboo" (deadly - its eats people) and that its "very pznest" (very poisonous). It is interesting that they put so much effort into showing the size of the snake in the diagram but their comment in the check-list is simply "Big". Perhaps the need to write an explicit description of the snake's size was not seen as necessary because the information is depicted visually.

These pieces of writing show what children, totally undirected, attempted in their writing after their interactions with the enlarged non-fiction books. Their approximations indicate both the potential and the challenge that non-fiction book provide to children's understandings about the features of non-fiction. Despite errors and inaccuracies these children showed many signs of becoming confident constructors of a variety of text types. Their willingness to organise information in different ways showed they were learning about ways of thinking about the world and of constructing reality.

The children were not only using the models they have seen in the book, but they were combining them in innovative ways. The degree of success in constructing and signalling relationships through the use of such visual devices doesn't really seem to be the main point. What is significant about what the children have done is the fact that they saw themselves

as writers who could select and adapt what they saw in books to suit their own purposes in writing.

TASK B: Writing a set of "Animal Clues"

Unlike most of the other tasks the teacher set, this one was highly directed and demanded that the children make explicit use of the model found in Animal Clues (Fig 9).

The pattern of this text is obvious and is repeated in the same way for each animal. In this pattern, two clues are provided about the appearance of two parts of the animal, one clue about its habitat is provided and lastly, the whole animal and its name are revealed when the page is turned over.

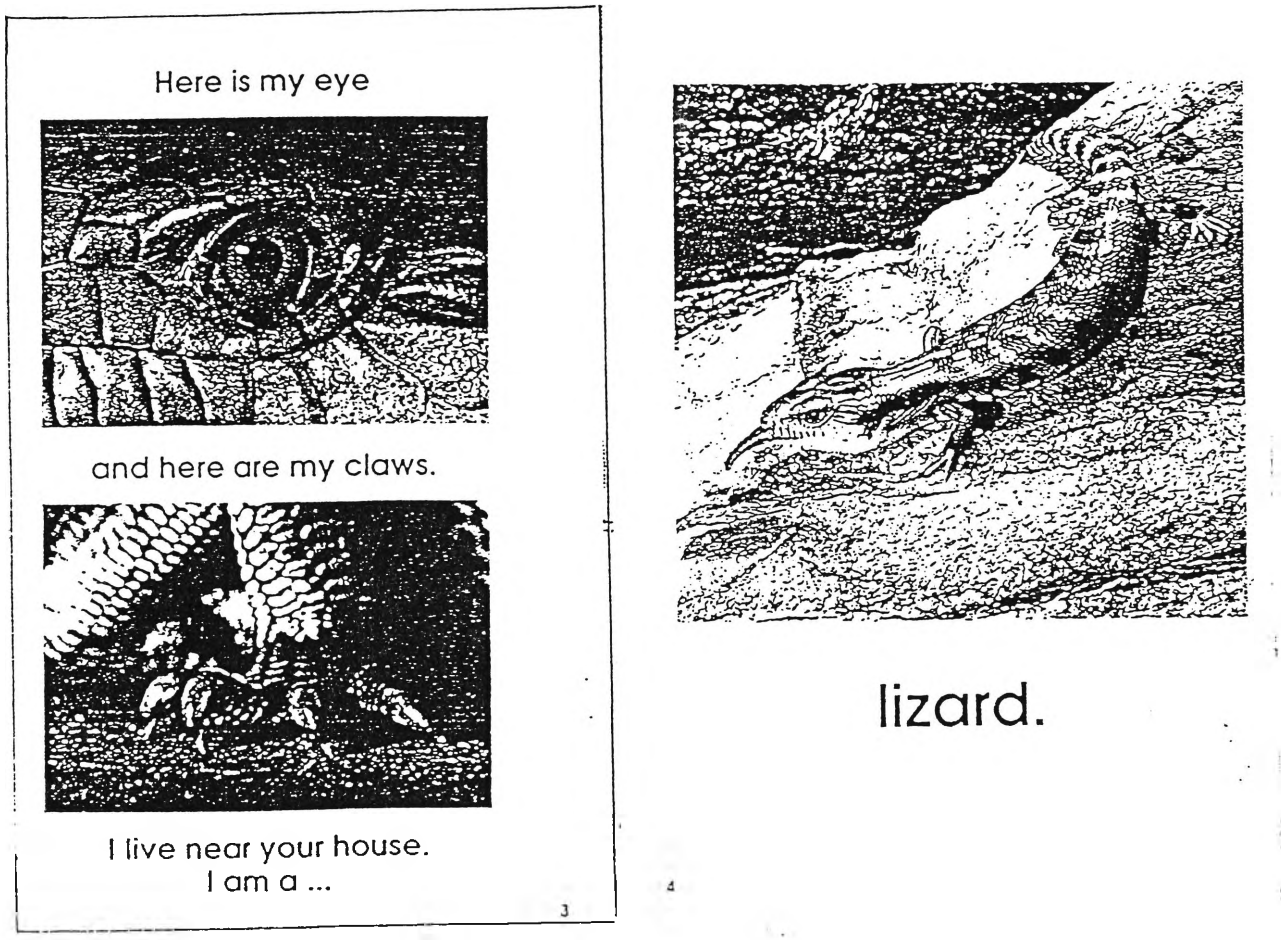


Fig 9

To complete the task of successfully using this model to describe an animal, the children had to:

- choose an animal
- visualise it
- isolate its features
- select two of these and write them according to the pattern
- draw the parts using the same pattern and layout of the text
- draw the whole animal

The children's products reveal that they could meet the demands of this task and innovate on a specific model to create their own version of the text.

Hayley's product (Fig 10 a & b) shows she had a good understanding of the pattern from the book as well as an insight into the kinds of visual clues that are required. Even Nichole, who could not write her clues, was able to draw them and then dictate her own text (Fig 11 a & b).

Generally, all the children in the class did this task very well which shows that they can recognise and innovate on a pattern in a text. Some children however, provided more subtle visual clues because they understood that the game is to provide clues but to ensure they are not too obvious. Julia's product is a good example of more subtle visual clues (Fig 12 a & b).

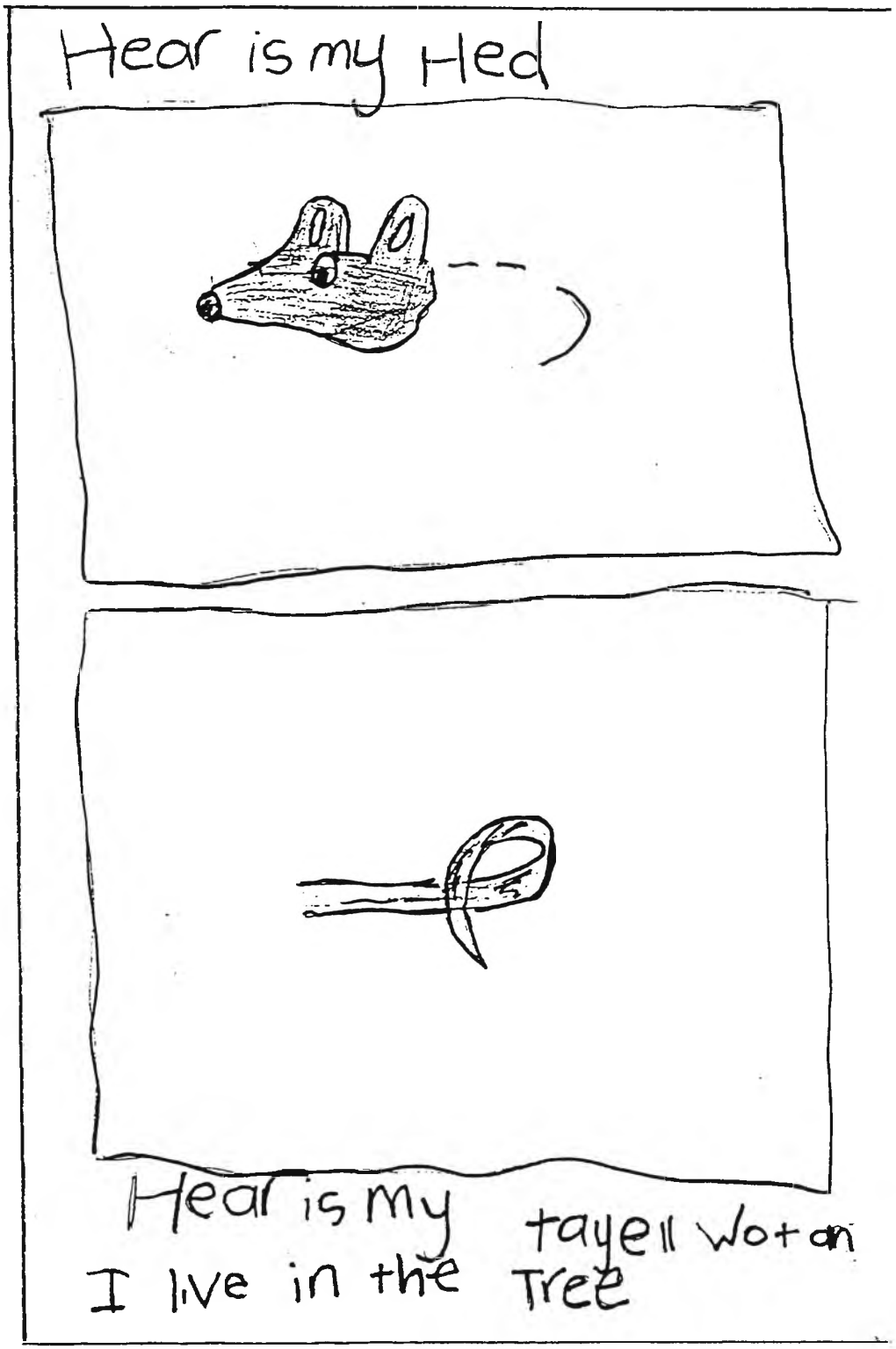


Fig 10 (a)

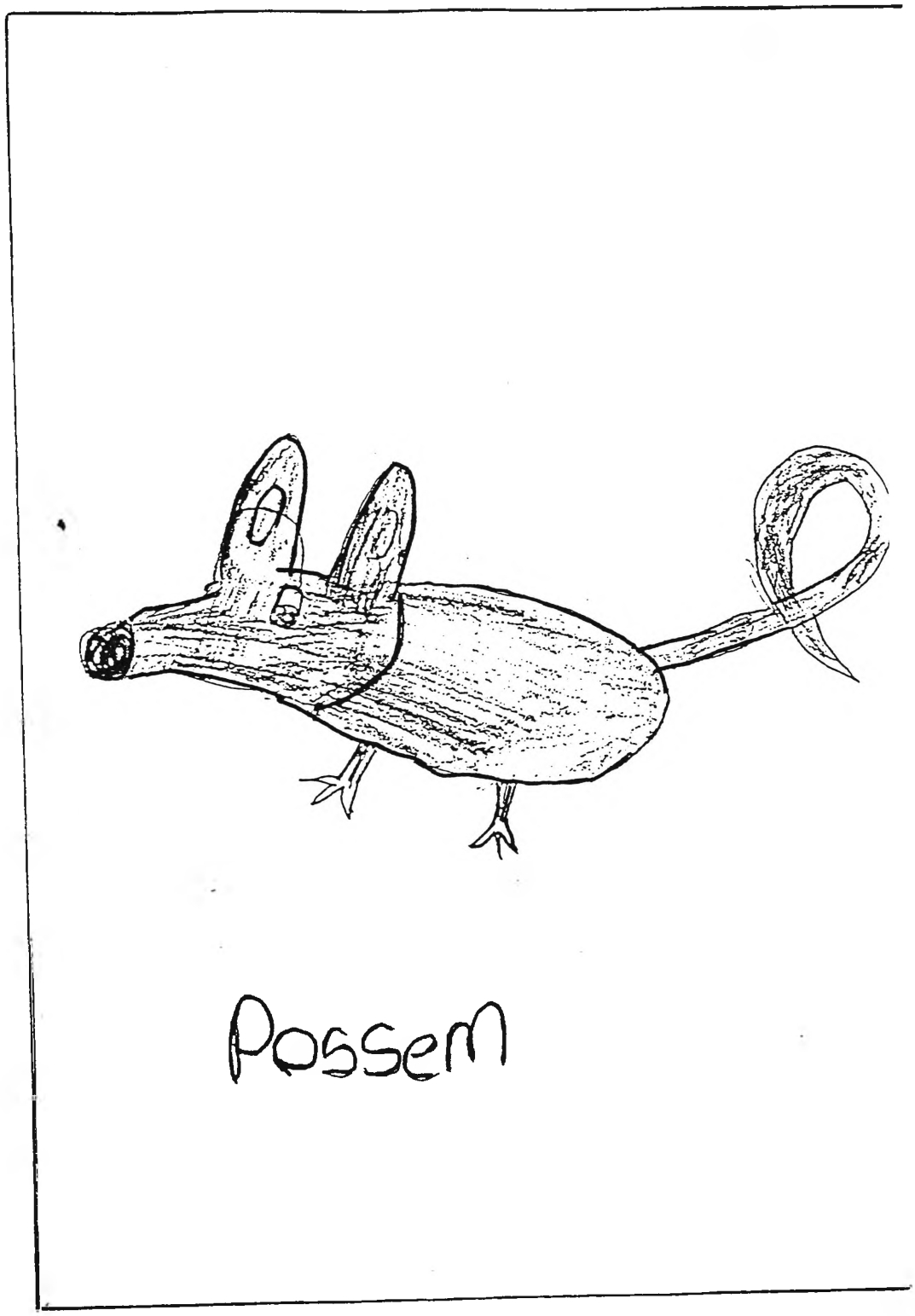


Fig 10 (b)

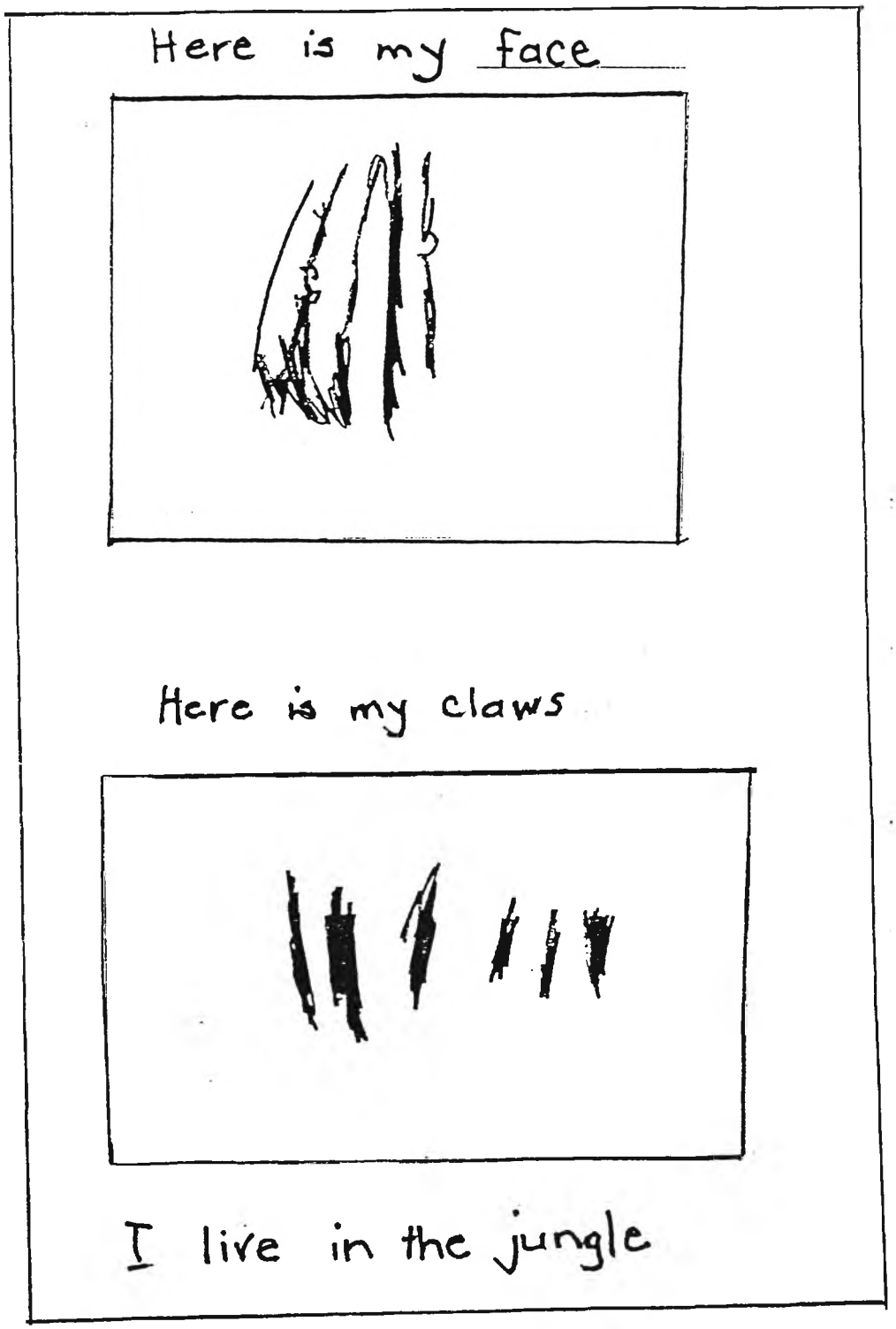


Fig 11 (a)

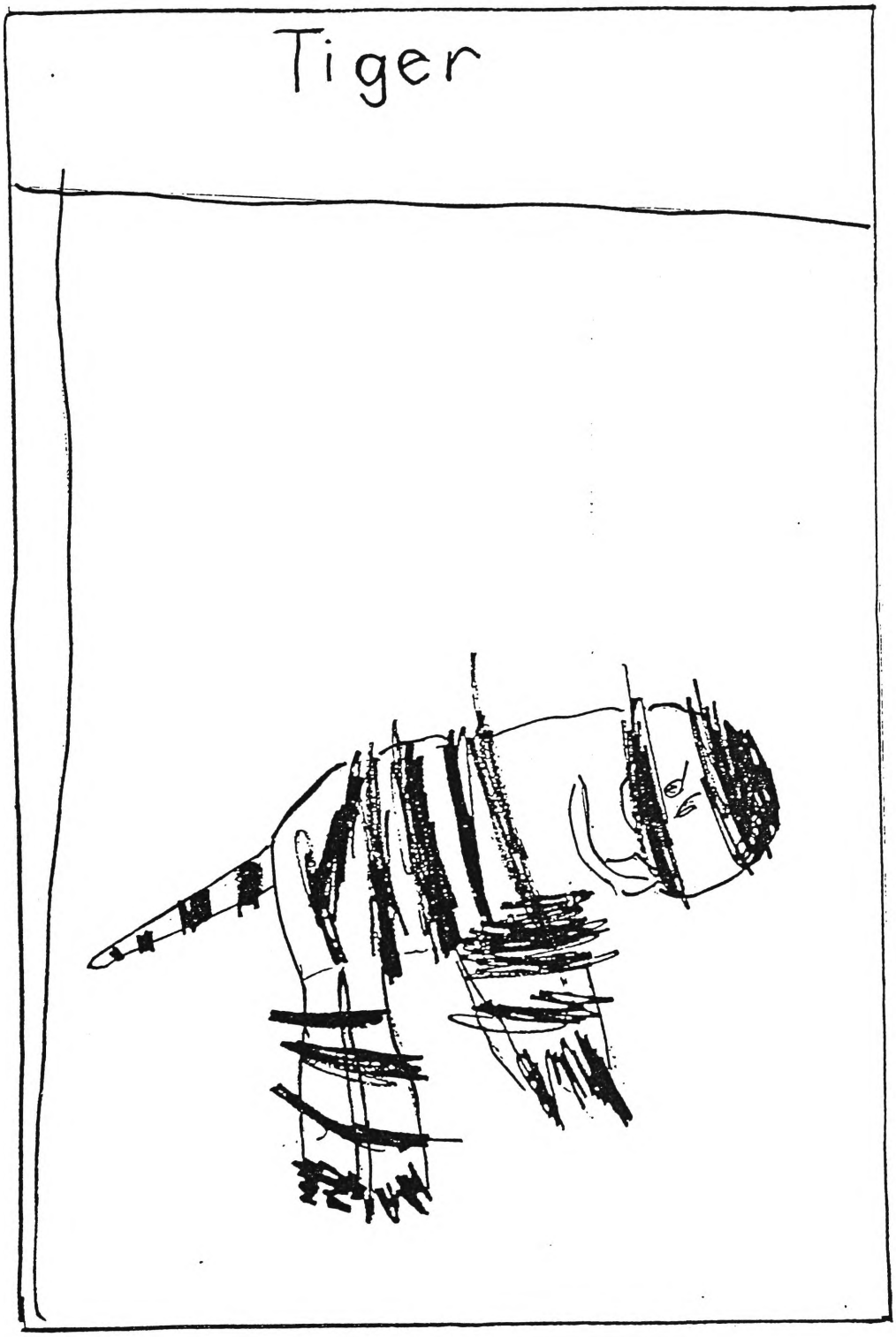
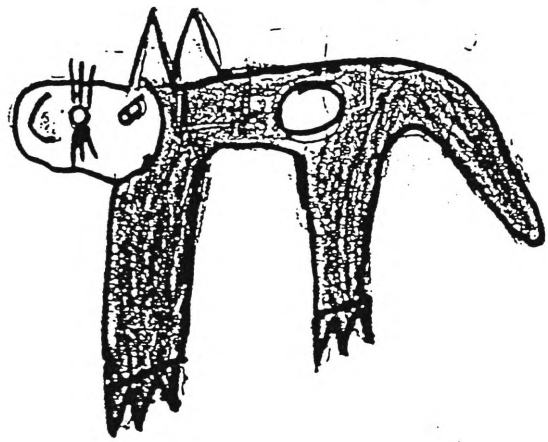


Fig 11 (b)

Fig12 (a)



Jat.

Fig 12 (b)

The children were aware that they were creating a game for others to play and their products demonstrate this awareness in the use of appropriate written and visual clues.

The task Sue set helped the children to understand that it is desirable and acceptable to use what they see in books as a model for their own writing.

TASK C: Giving opinions about non-fiction books.

Sue often invited the children to give their opinion about the parts of the books which they liked.

To do this task, the children had to:

- remember and review what they had seen in the books
- decide on which thing they had liked the best
- write their opinion

Their responses to this task reveal some of the features of the book to which they attended and which interested them. In most cases, the children's responses indicated that they liked the illustrative material in the books. Three out of four examples discussed here relate to illustrative material.

Michael clearly enjoyed the illustrations which were placed at the bottom of the pages in The Book of Animal Records. Michael understood that this kind of illustration needed to be accurate to be informative. This is why he traced the drawing. He could not draw it well enough himself (Fig 13). He attempted to get other people to draw it for him because of his express concern for accuracy. When this strategy was not successful he simply traced it.

Damien not only indicated that he liked the map and the comparative chart in The Book of Animal Records but also gave his reasons (Fig 14). He has attempted to reproduce parts of the quite complex chart in the book (Fig 15).

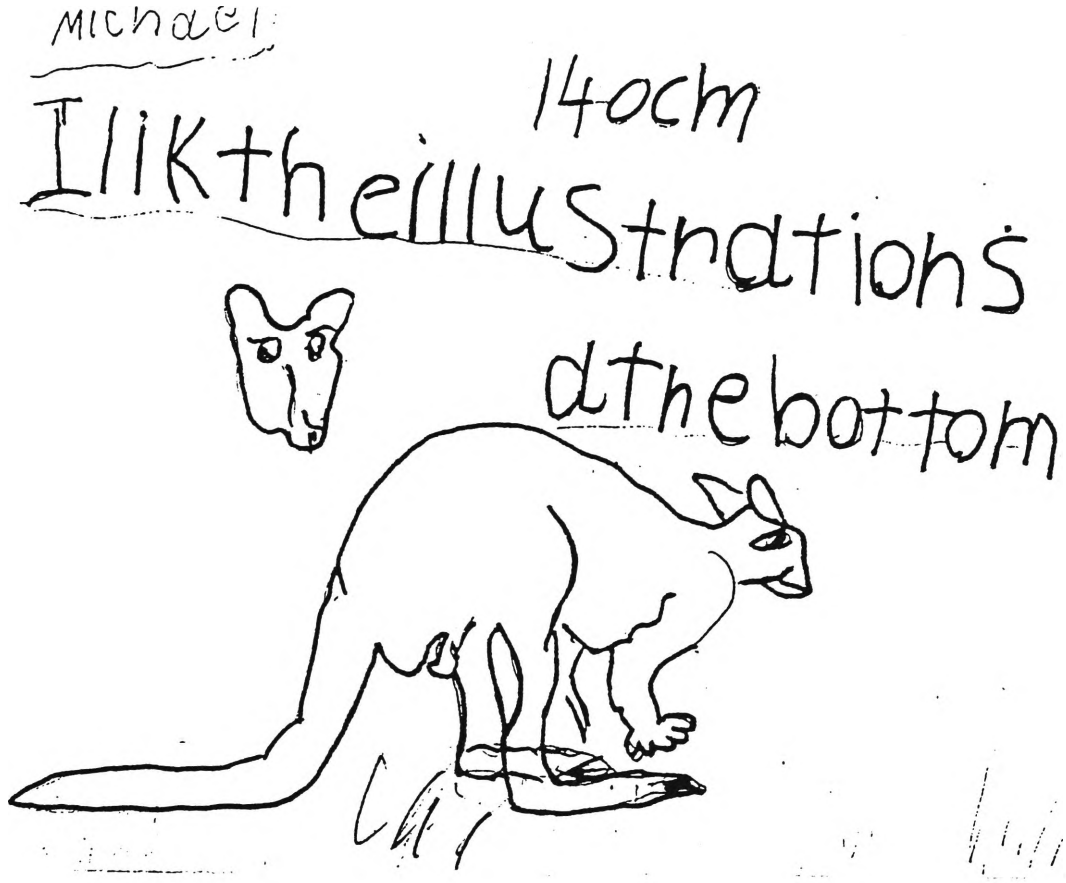
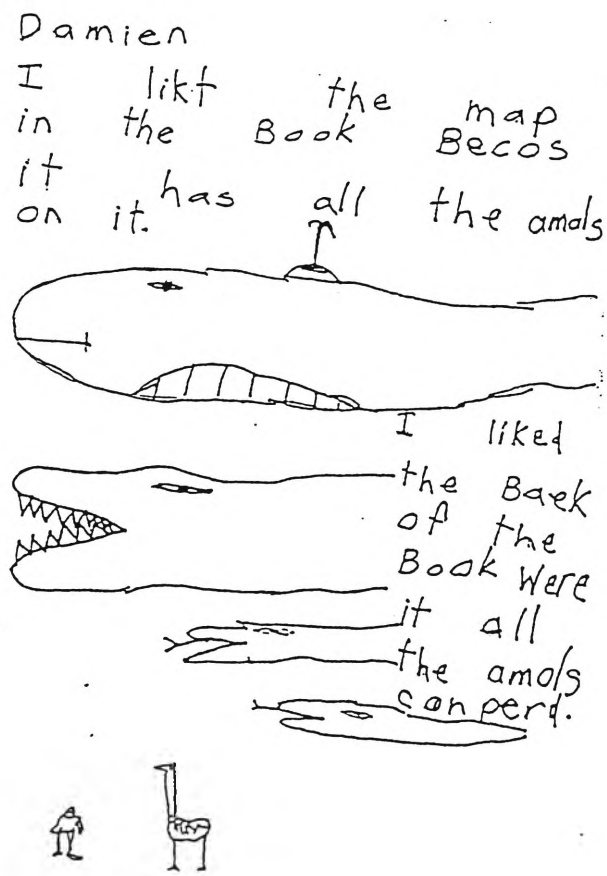


Fig 13



I likt the map
in the book becos
it has all the amals
on it.

I liked
the back
of the book were
it all
the amols
conperd.

Fig 14

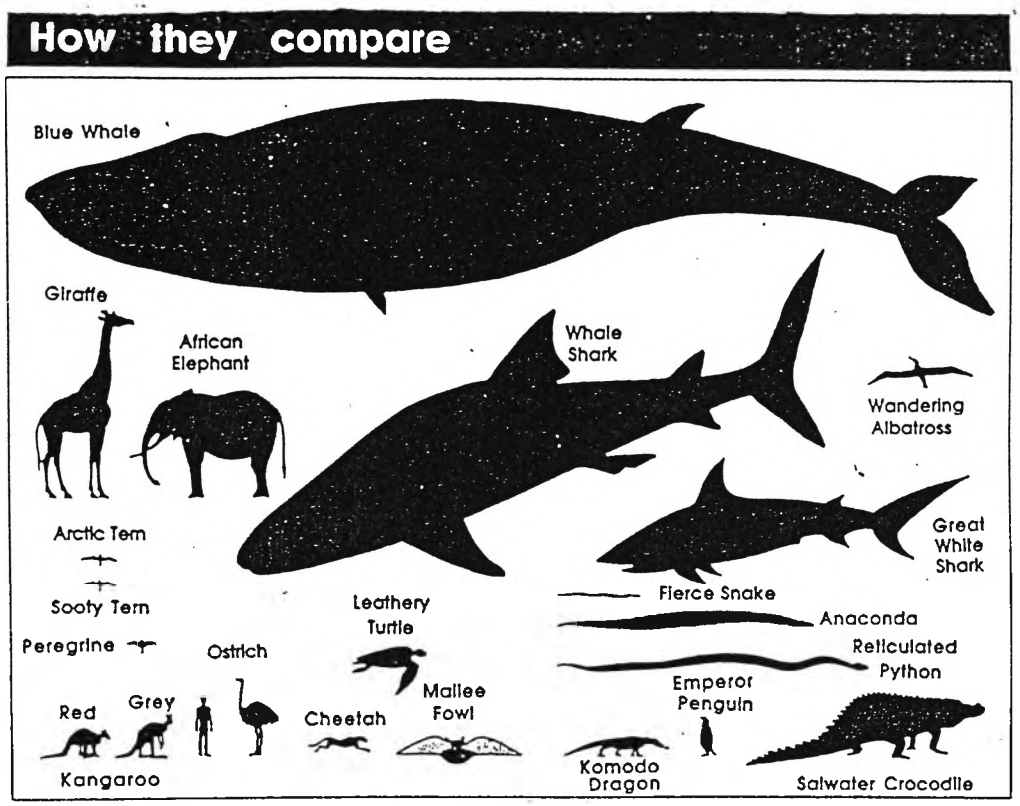


Fig 15

Through his drawings and his text "all the amols conperd", Damien revealed that he understood that the chart was a means of comparing the size of different animals to each other and to a human. He understood the structure at work in this type of illustrative material.

Karen wrote that she liked most aspects of the book - the map, animals, contents, back page (comparative chart), the photos and the colours (Fig 16). She has mentioned organisational features like the contents and the colour-coding. The latter was used throughout the book to indicate groups of creatures.

I like the map
and the amles. and the
contest. and on the bac pach
and the fotwso but most
the rest, I like is the
colours.

From Karen.

Fig 16

Alicia also indicated that she liked the contents and use of colour coding in The Book of Animal Records. She also went on to demonstrate her understanding of the alphabetic nature of the index by listing letters of the alphabet (Fig 17). The fact that she has repeated each letter may indicate that she understood there is often more than one entry per letter.

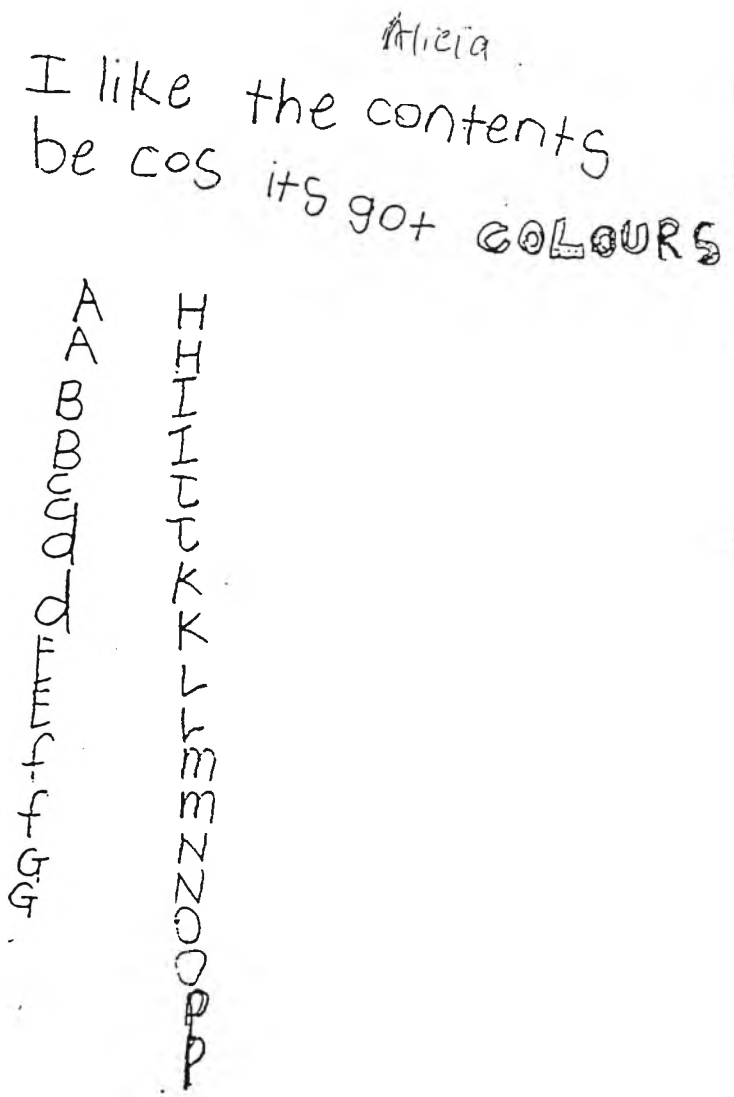


Fig 17

Each of these children was able to be selective about what they liked and could confidently write their opinions. They seemed to be focusing mainly on the illustrative and organisational features of the books.

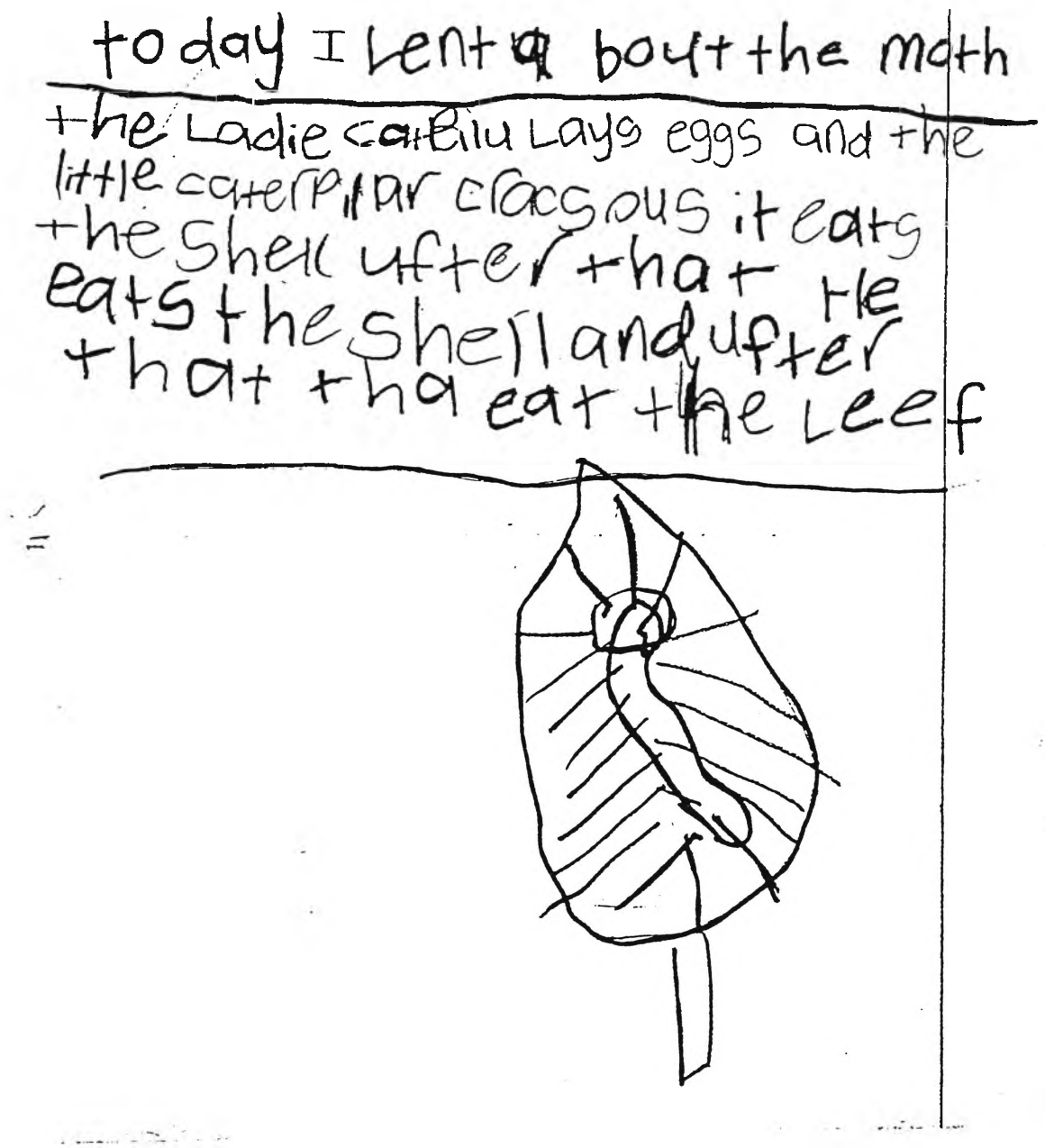
TASK D: What they learned.

Writing about what they had learned or found interesting about the information in the books they read, was a recurring task so the examples of the children's products which are discussed here are drawn from a number of episodes.

This task required the children to make a decision about what they had learned from reading the books in the Shared Book sessions and to write it. They were not given any other instructions, so it was up to them to make all the decisions about what to write and how to write it. Therefore, the decisions about topic, structure, language and presentation reflected the children's own understandings about constructing non-fiction texts.

The examples of writing discussed in this section demonstrates the sophistication of the children's understandings about the features of non-fiction texts and what they had learned from reading them.

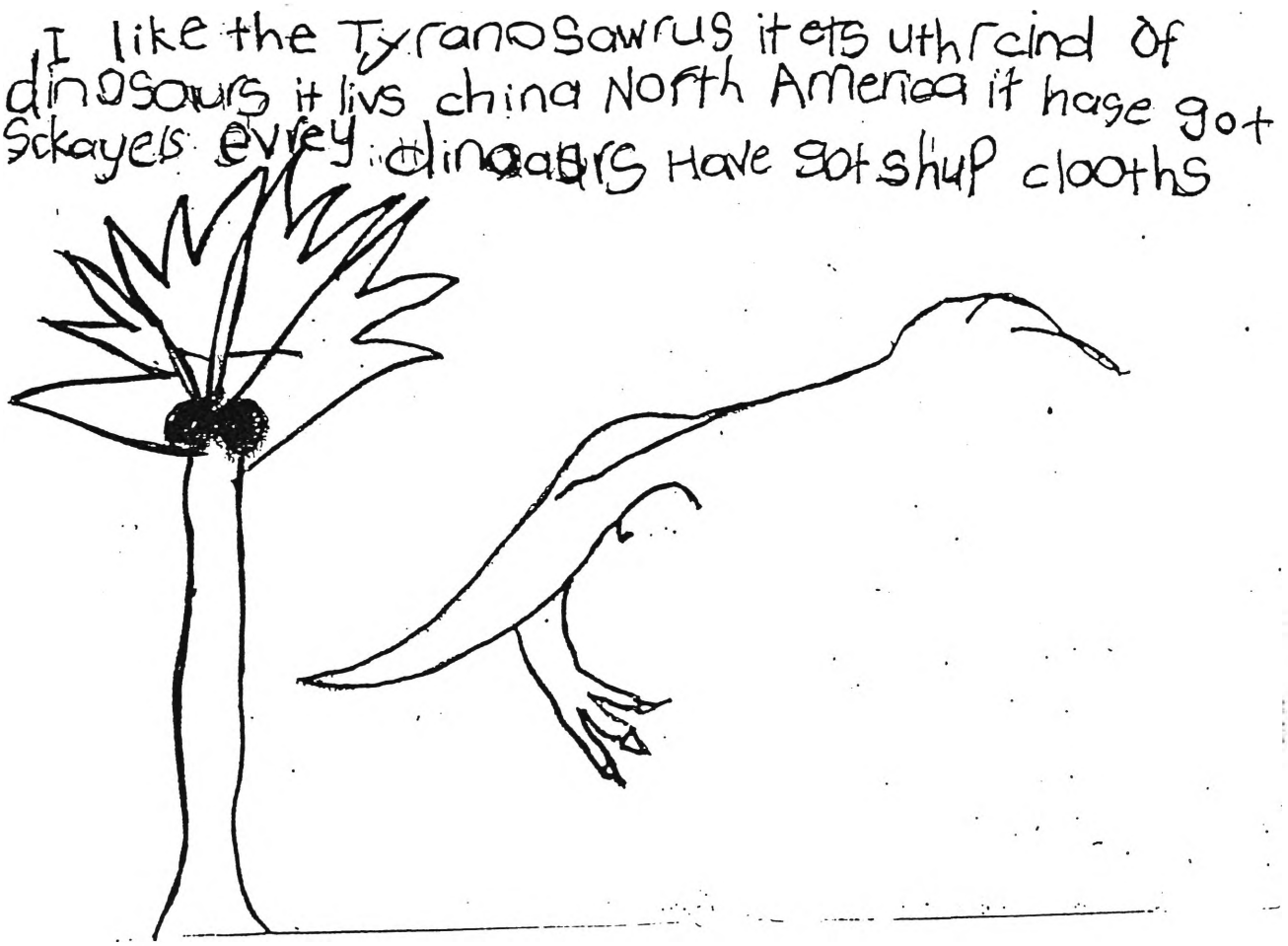
Alicia had learned about the early stages of the life cycle of the moth (Fig 18). She has remembered the sequence of feeding behaviour which she read about in Caterpillar Diary and has structured her own text on that sequence.



Today I lent about the moth
the ladie catpilu lays eggs and the
little caterpillar cracs ous it eats
the shell ufter that He
eats the shell and ufter
that tha eat the leef

Fig 18

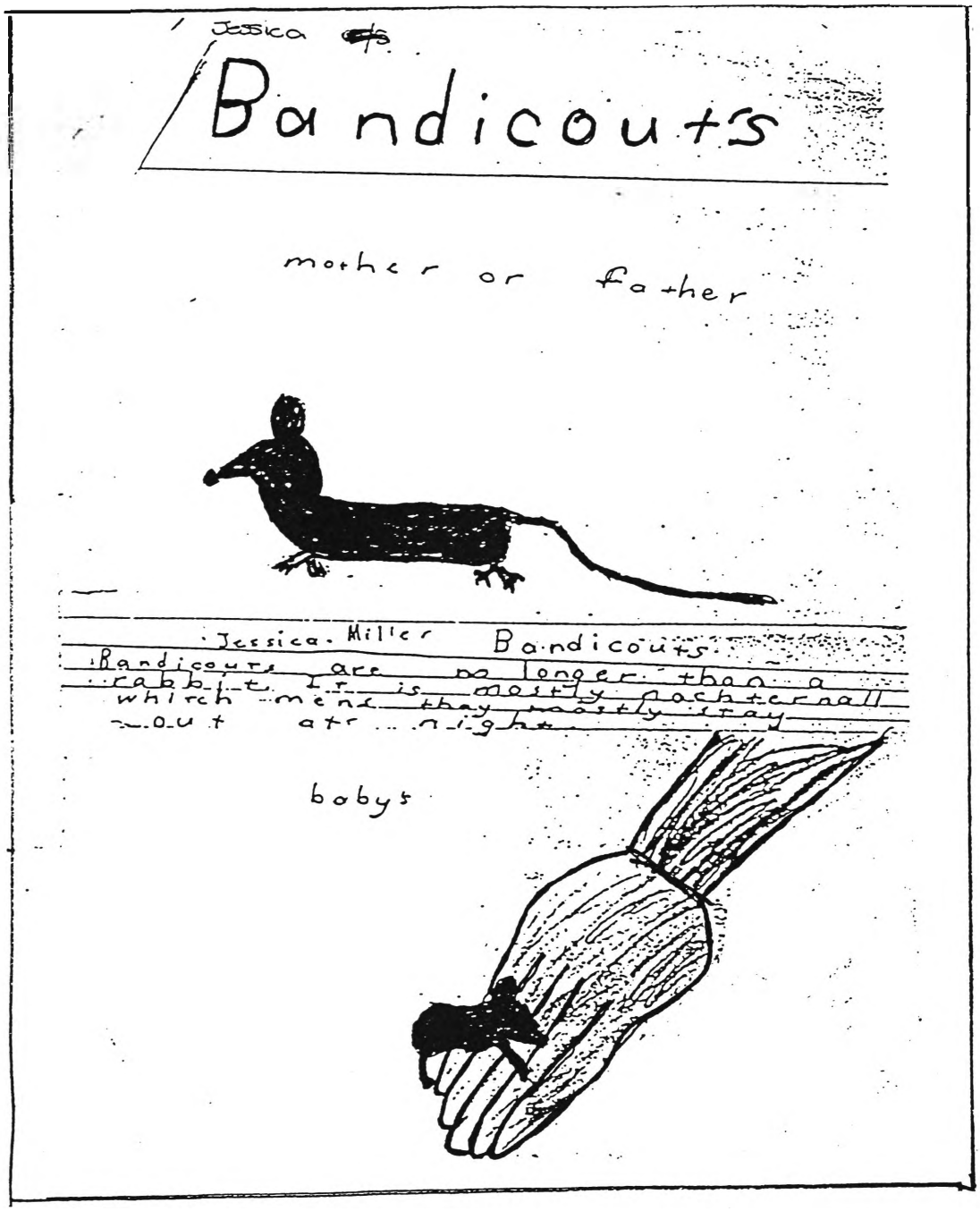
Her diagrams of the caterpillar on the leaf revealed she rendered the detail of the leaf as accurately as she was able. In another piece about the 'Tyranosaurus' (Fig 19), Alicia wrote about the food it eats, where it lives and some details about its appearance. In this piece Alicia has gone beyond the information given to generalise about one of the characteristics required to belong to the class of dinosaurs. That is, she has ended her piece with the generalisation that "every dinoaurs have got shup clooths". This may indicate that Alicia understands that non-fiction deals not only with specific information but with the classes of things and with generalised, systematic knowledge. Irrespective of the accuracy of her statement she has demonstrated that she can use intellectual processes such as classifying and generalising which are essential for learning.



I like the Tyranosawrus it eats uthr and of dinosaurs it livs China North America it has got sckayes every dinoaurs have got shup clooths.

Fig 19

Jessica also demonstrated that she can carry out the complex intellectual processes needed for shaping and ordering her thinking about the world (Fig 20).



Bandicouts
Bandicouts are no longer than a rabbit. It is mostly nochternall which mens thay mostly stay out at night.

Fig 20

In the first section, Jessica provided a heading, "Bandicouts", which signalled the topic she has written about. She included a labelled diagram of the bandicoot. The fact that she labelled the drawing "mother or father" may indicate that Jessica thought that there were no overt differences in features such as colour or size to distinguish between the male and female bandicoot.

In the first sentence, Jessica used her existing knowledge about animals to compare the focus animal with a well known common animal. The second sentence not only stated one of the behavioural characteristics of the bandicoot (i.e. "it is mostly nochternall"), but she went on to give a definition of the term nocturnal. This is a very significant step because it showed Jessica understood the need to include the meaning of specific terms so that her reader could understand what she was saying. Her use of a definition and of comparison to provide information demonstrated she was aware of the ways in which non-fiction pieces are structured.

Jessica also provided information through her use of illustrative material. For instance the colours in her drawing were accurate and she provided a visual comparison of the relative size of the bandicoot and a human hand in her diagram.

Kevin in the piece below (Fig 21) seems to be surprised by his new found understanding that the African Elephant is not bigger than a giraffe. His use of the double negative to express his meanings indicated that he is using the kind of language and sentence structures found in non-fiction texts. Here too, Kevin tried to depict his information in his drawings and to do so accurately.

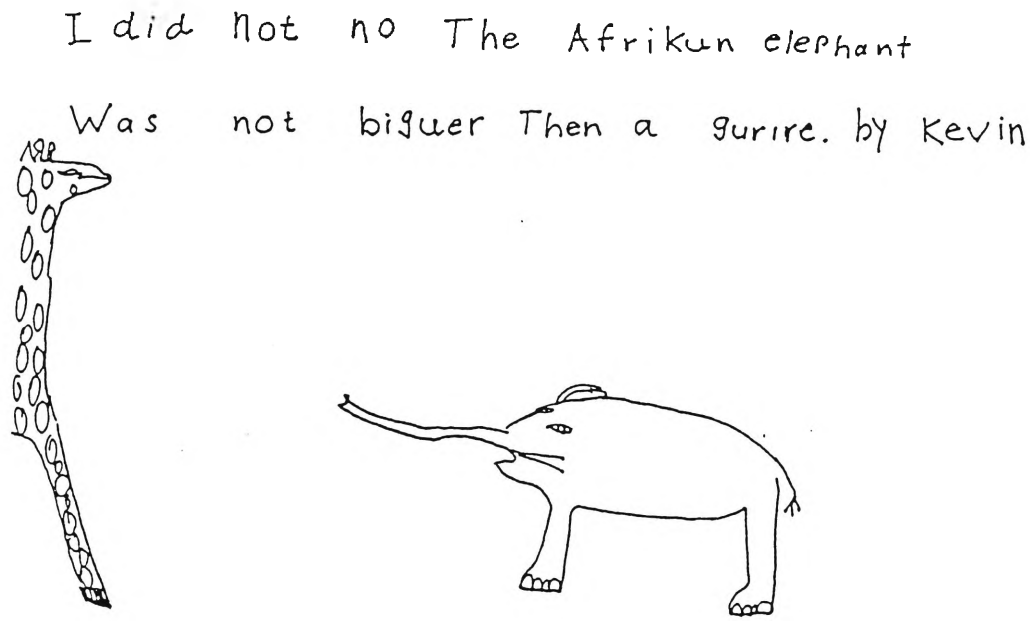


Fig 21

In the range of products discussed, the children demonstrated that they are learning from reading and that they can use appropriate language and ways of structuring and organising information.

TASK C: Projects

The teacher organised for the children to do a project on an animal of their own choice but their projects were done the term after I had observed the children in the Shared Book sessions. Sue was interested to see how the children would handle this quite demanding task after a reasonably long interval of time had elapsed since the intensive twice weekly Shared Book sessions. The children were given the task of writing a project on an animal or topic of their own choice. They had to decide on the topic and how they would present it. The children wrote individual projects.

Their finished projects showed that they could select information and classify it under headings; they could use illustrative devices for presenting information; they could use organisational features like contents, headings and page numbers; they could use a consistent and predictable layout throughout their projects and they could use the appropriate language and discourse structures for their topics.

Although the topic was entirely open ended, nearly all the children decided to write about animals. This is not surprising given that all the books they read in the Shared Book sessions were about animals.

Hayley undertook a quite ambitious task when she wrote her project "Fish, Dog, Cat, Bird and Foal Diary". (Fig 22 shows the front cover of her project.) Although her text is not actually a diary she has created a series of reports which focus on each of the animals in her title. Her project is made up of eight pages, five of which deal with the animals. She has included a title page with a drawing of each animal and a contents page. The pages dealing with the animals had a consistent layout comprising a heading, a half page of text and a half page for a comparative diagram. Her idea for this comparative diagram came from the Book of Animal Records where the author used a set of scales to show how many animals or people would be needed to weigh the same as one animal. (Fig 23).

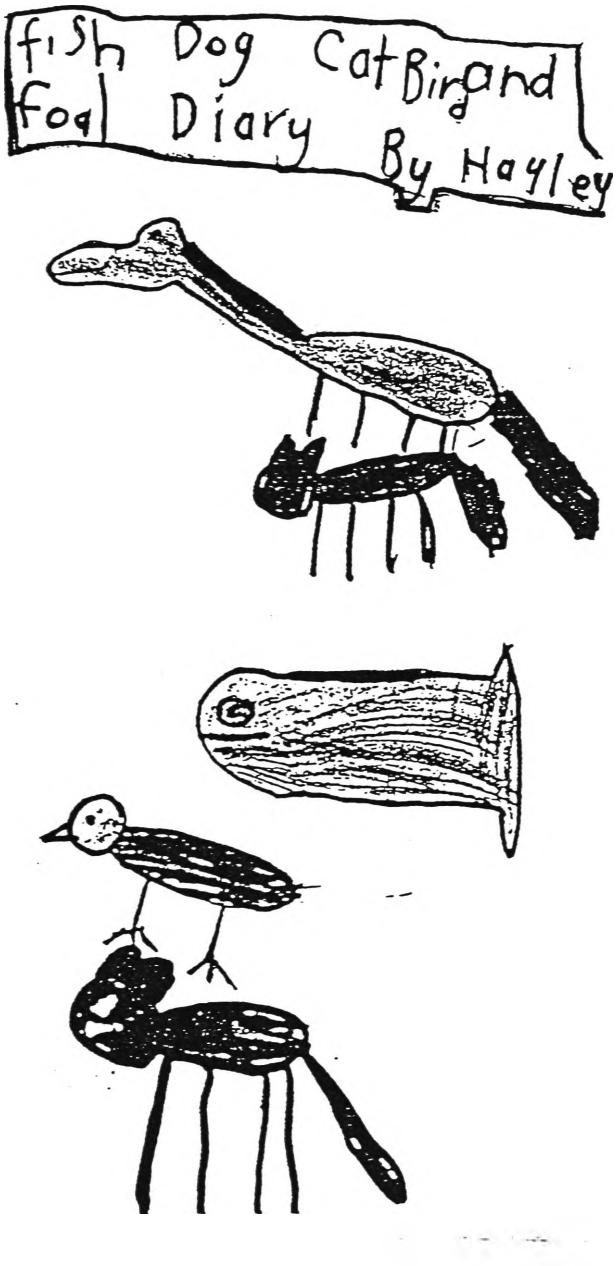

fish Dog Cat Bird and
Fog Diary By Hayley

Fig 22

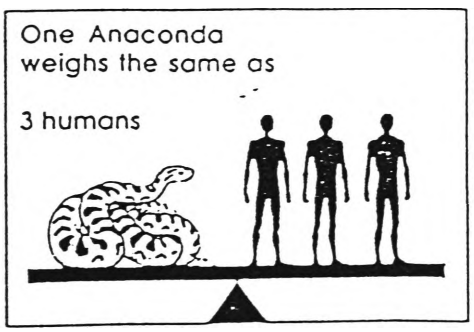

One Anaconda
weighs the same as
3 humans

Fig 23

Her comparative diagram (Fig 24) reveals that she;

- has an awareness of the measurement of weight;
- has the broad concept of lighter than/heavier than;
- can depict a concept in visual form; and she has
- an understanding about ways of presenting information.

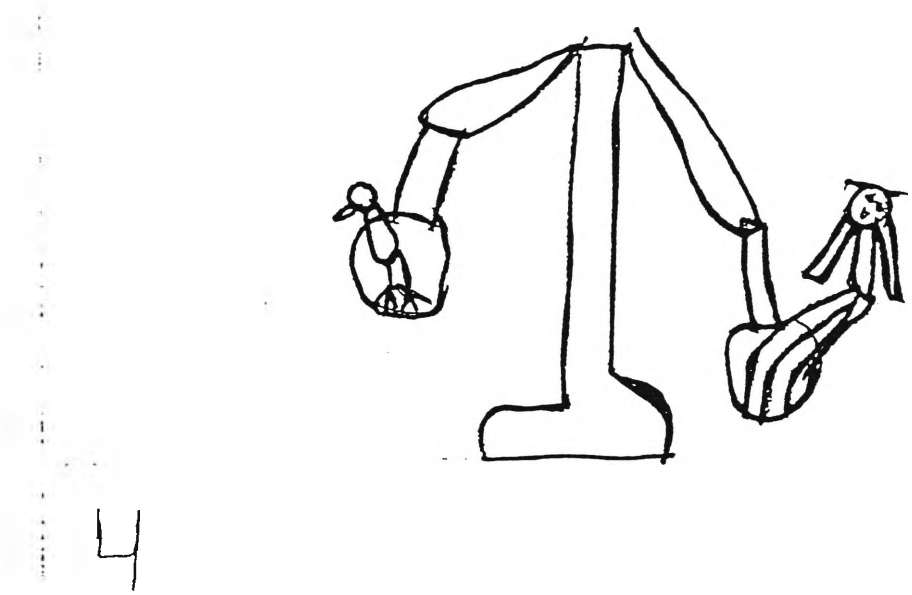
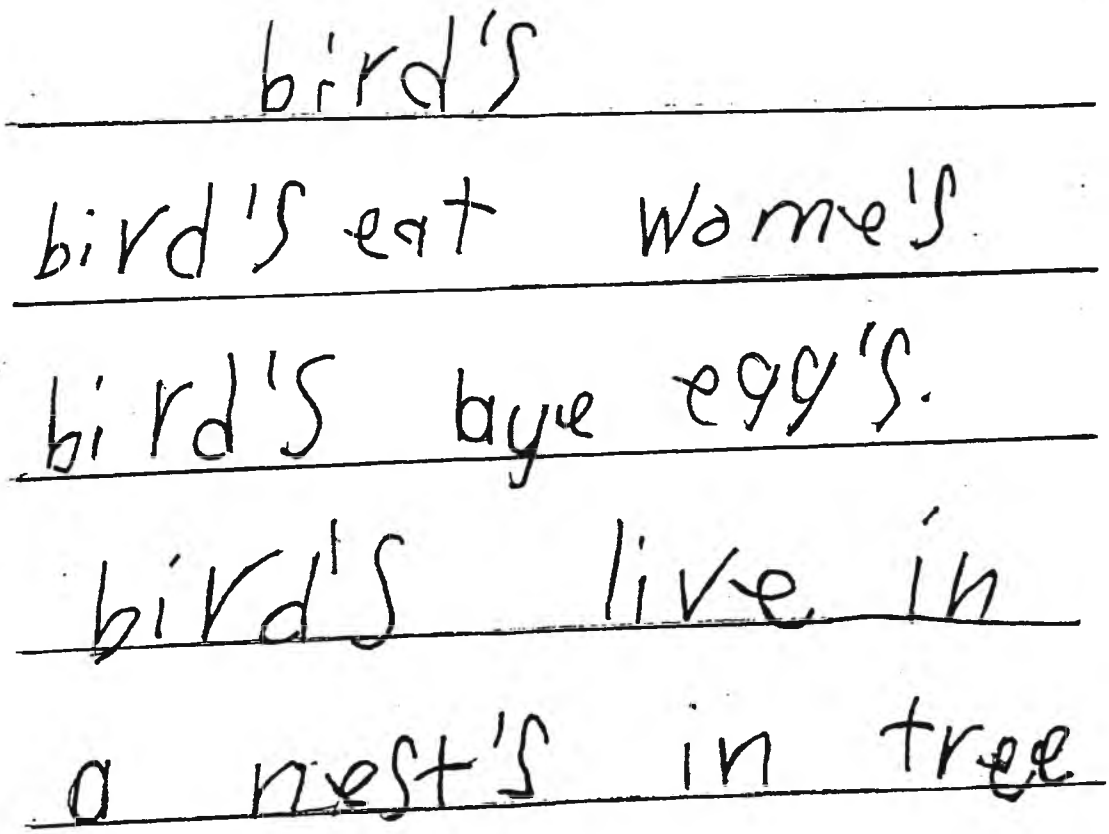


Fig 24

Hayley used a diagram of a set of scales on each page to show the relative weight of the animal and a human. The scales that Hayley drew were different from those shown in The Book of Animal Records. This means that she understood the concept, but has drawn the kind of scales that she knew about. She has not imitated unthinkingly the model in the book, but has extracted the strategy that the writer has used and made it her own.

However, her use of such illustrative material revealed an understanding that they can show information about some aspects of the relationship between things.

On each of her one page reports on the animals Hayley used a consistent way of structuring the information. As can be seen in Fig 25 she provided information about food, reproduction and where the animal lives. She was aware of the kind of information found in non-fiction books and used this knowledge in her own writing.



bird's
bird's eat wome's
bird's laye egg's
bird's live in
a nest's in tree

Fig 25

Jessica, in her project entitled "Horse Magasean" revealed a remarkable sophistication in her knowledge about horses and in her use of organisational features, discourse and sentence structures, language and of illustrative material.

Jessica provided a contents, an index, page numbers and headings for each section. The contents reflected her ability to group, sort and classify information so that there's a clear understanding of what kind of information belongs together and therefore a clear focus for each aspect she wrote about (Fig 26). One section of her project (Fig 27) showed her authority about information and the language and structures which can be used to express it. Clearly she has drawn on what she had read to help her to write on this topic and to present her information appropriately.

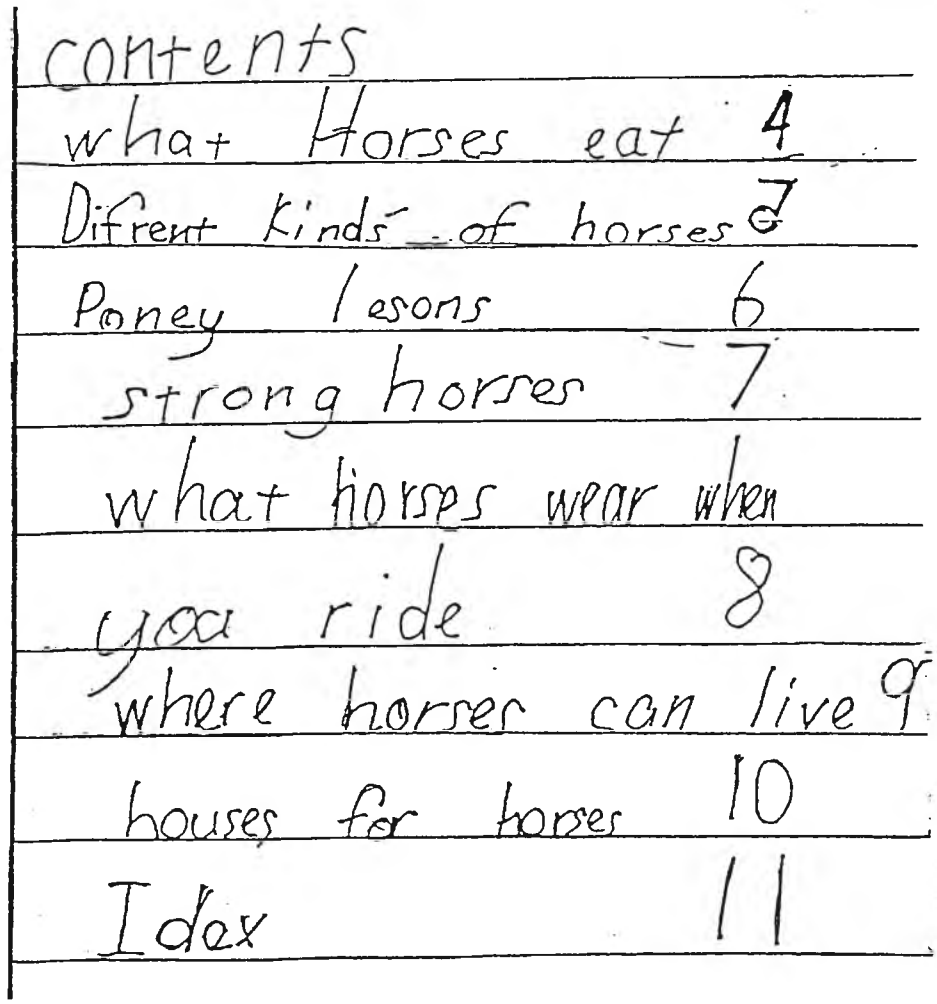
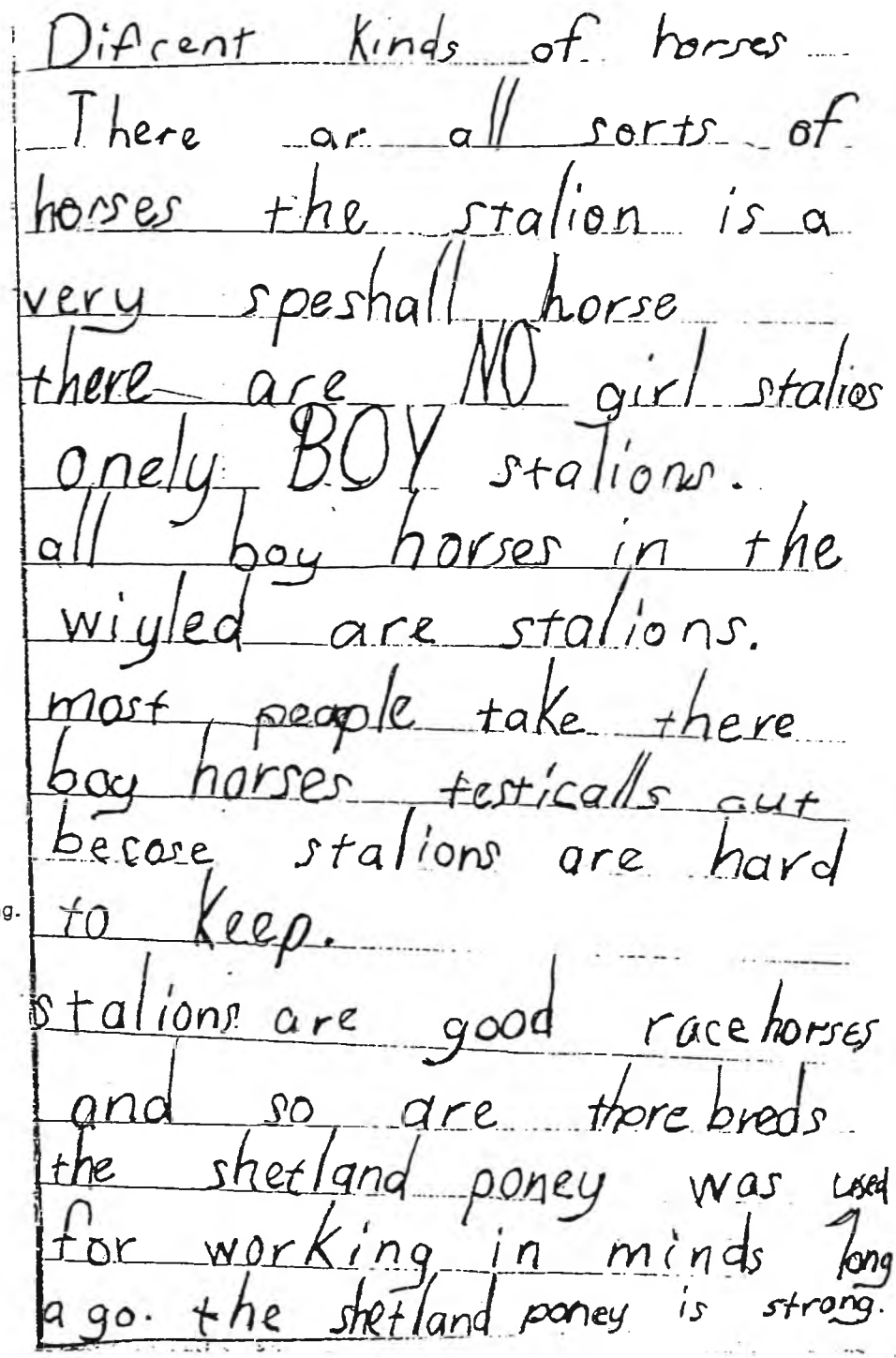


Fig 26



Difrent kinds of horses.
There ar all sorts of
horses the stalion is a
very speshall horse
there are NO girl stalions
onely BOY stalions.
all boy horses in the
viyled are stalions.
most peaple take there
boy horses testicalls out
becose stalions are hard
to keep.
stalions are good racehorses
and so are thorebreds
the shetland poney was used
for working in minds, long
ago. the shetland poney is strong.

Fig 27

There is a clear logic in the way Jessica has ordered the information except for the last sentences about Shetland ponies. She seemed to be dealing with two major ideas, these are what stallions are and different kinds of horses and their uses. The information that stallions are special horses, that there are only boy stallions and that all boy horses in the wild are stallions, provided a clear definition of what a stallion is.

Her use of bold capital letters for NO & BOY show that she was aware of devices which can be used for emphasis. She was also able to make the generalisation that "all boy horses in the wiyled are stalions" and to give clear explanations such as "most people take there boy horses testicalls out becose stalions are hard to keep".

Jessica's use of labelled diagram to show the gear required for horse-riding was a very economical way of presenting her information (Fig 28). Her labelled diagram was very detailed and even included an inset diagram of "horse shous" which could not be shown on the actual diagram itself. In her label for the "bridel" she gave her readers an alternative such as "or etliest have a holtu" (or at least have a halter).

Jessica's project really reflected the sophistication which cames from a well developed knowledge of the topic and of familiarity with what non-fiction writers need to provide for their readers.

Hayley and Jessica's projects clearly demonstrated that they had developed understandings about ways of shaping and ordering information which are reflected in their use of organisational devices such as contents and headings.

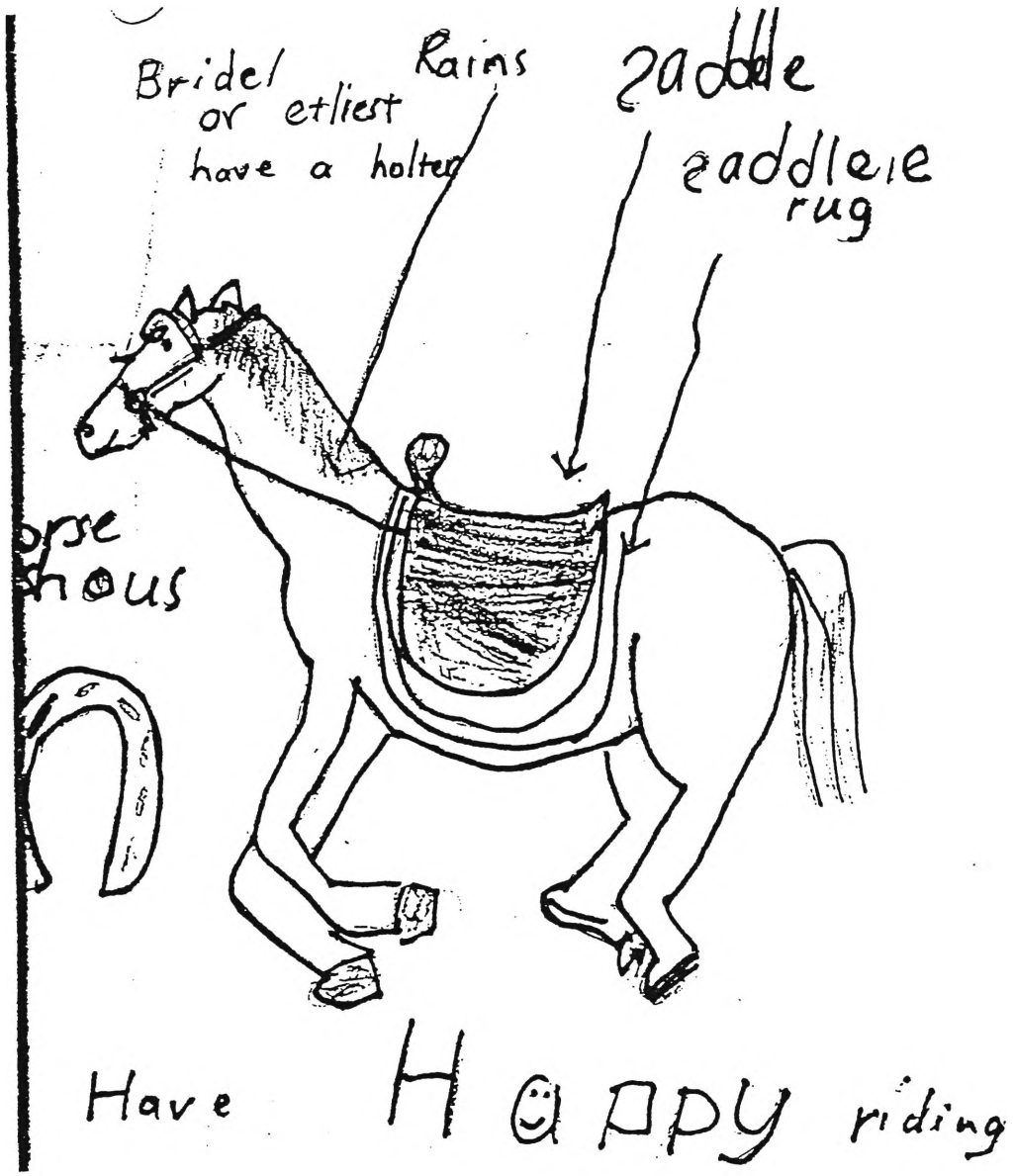


Fig 28

They could also use illustrative devices to visually depict the concepts and information they were dealing with. Their sense of audience is clearly demonstrated through the use of the features of non-fiction texts. Neither of these children had copied information verbatim from the texts they had read. Rather they had read and transformed the information by devising their own means of organising and presenting their information in ways which were considerate of their reader's needs.

5.2 CASE STUDY: ONE CHILD'S WRITING

A case study of Kate is included to show the development which took place in her non-fiction writing over the period of two terms (approximately 20 weeks). While the samples of writing presented so far provide compelling evidence of the kinds of achievements which are possible for six year old non-fiction writers they do not give a picture of the range which one child has achieved. This brief case study then is meant to show what Kate had achieved as a writer of non-fiction texts.

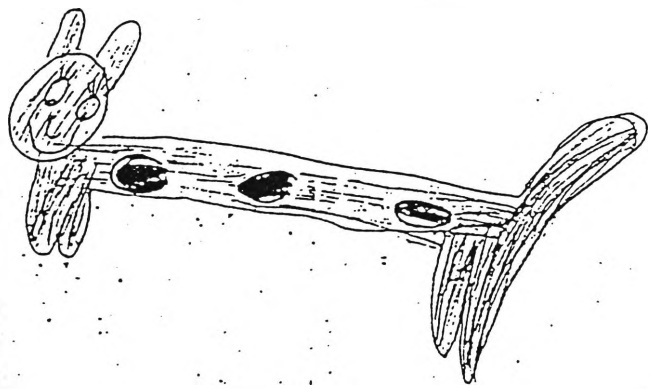
Kate was selected because her writing demonstrated that she learned a great deal about non-fiction writing from her participation in the teacher's big book sessions and from her own independent reading of non-fiction texts. Her writing provided insights into what she could do as a writer and the understandings about non-fiction that she gained from reading.

Kate's pieces on the Bandicoot (Fig 29) and the Tallest Marsupial (Fig 30) were written in response to the teacher's requests for the children to say what they had learned or what they found most interesting from the text they had shared during the big book lessons.

Both of these examples show that Kate has acquired a way of structuring texts which is typical of reports. She introduced her topic and then provided specific detail about the particular group of animals she was reported on.

In the Bandicoot piece Kate stated one of the characteristics of the Bandicoot, for example "have fur" and has then given precise information about its appearance such as "Is gray and black. It is small".

Kate
The Bandicoots have fur
That is gray and Black,
it is small



The Bandicoots have fur
That is gray and black
it is small

Fig 29

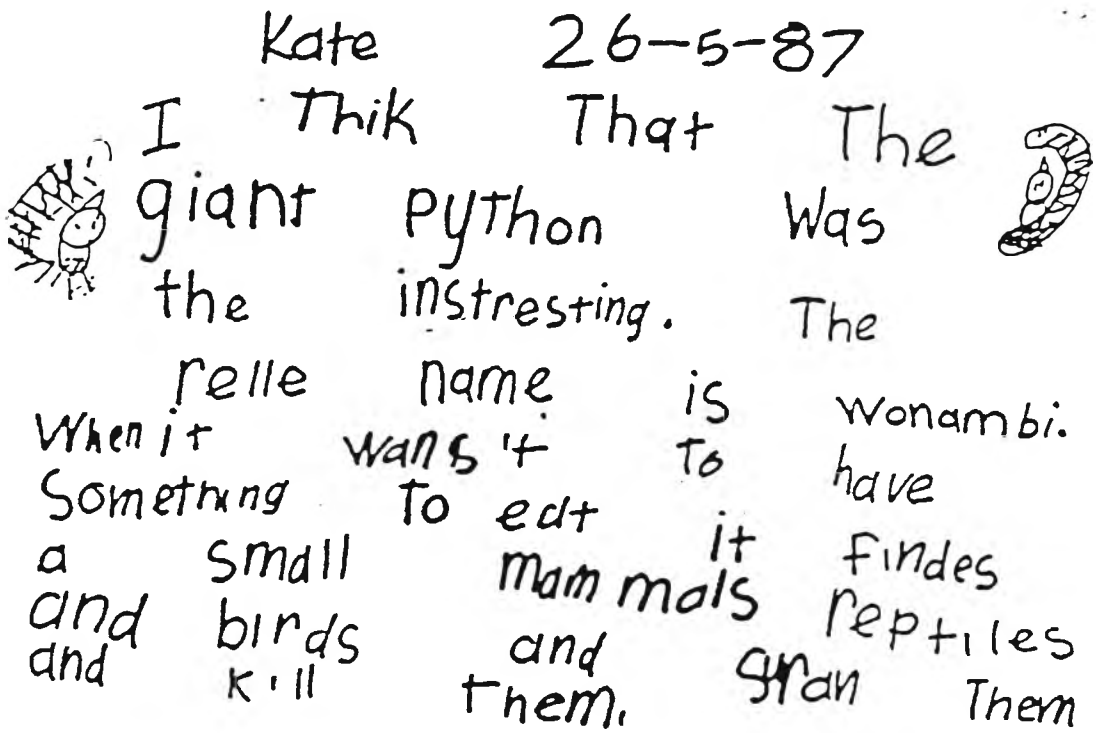
The Tallast Marsupial
is a gray kangroo
The gray kangroo wase
230 cm.

The Tallast Marsupial
is a gray kangroo
The gray kangroo wase
230 cm

Fig 30

The precise use of language and structure is evident also in Fig 30 where Kate reported on a specific feature of the Gray Kangaroo which is a member of the class of marsupials.

In Fig 31 Kate provided further examples of her attention to the use of appropriate language and to complex ways of structuring sentences which clearly signal her discoveries about the behaviour of the giant python.



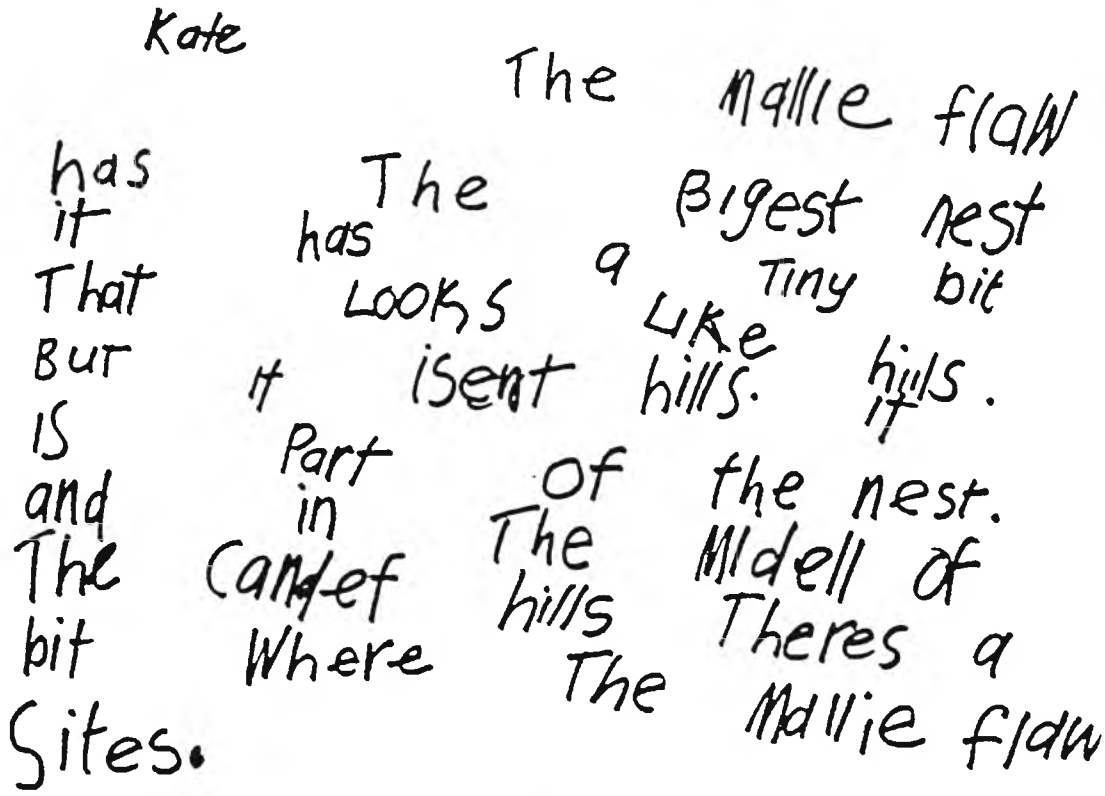
I Thik That The
giant python was
the instresting. The
relle name is wonambi.
When it wans't to have
something to eat it findes
a small mammals reptiles
and birds and suran Them
and kill them.

Fig 31

She depicted the way the snake kills its prey through the use of action verbs like "surran" (surrounds) and "kill". The syntactic choices made by Kate in the last sentence in this piece seem to be driven by the texts she has read. For instance, she modified the main clause by an adverbial clause of time and used a double verb phrase. Kate also wrote in the "timeless present tense" (Devewianka 1990) and wrote about the way the python obtains its food as a generalised process rather than as a specific instance of behaviour. These features are typical of the kind of complex constructions which are more often found in written than in spoken language. This demonstrates that Kate has appropriated the ways of structuring information and using language that she had seen in the texts she read.

Her piece on the Malle Flow (Fowl) Fig 32 provides evidence of the struggle that young writers face when trying to order information in a coherent manner.

Here Kate tried to translate a diagram of the mallee fowls nest into a written description. The result was a complex and interesting piece of writing in which Kate solved her problem of describing the nest by comparing it to the way hills look. However, she was eager to assure readers that she was only making a comparison between the hills and the nest because she used a disclaimer "But it isn't hills", and a modifier "candef (kind of) hills". The use of comparison is a significant marker of the kind of intellectual processes Kate had used and of her development as a writer of non-fiction.

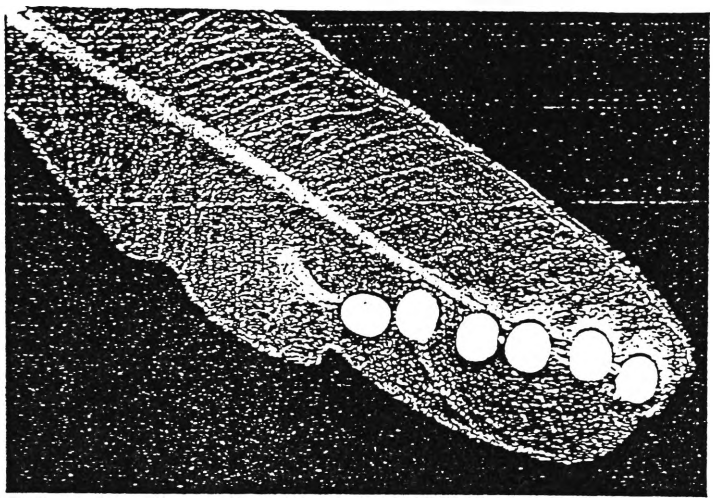


The Mallie flaw
has The bigest nest
it has a Tiny bit
That looks like hills.
But it isent hills. it
is part of the nest.
and in the midell of
the candef hills theres a
bit where the mallie flaw
sites.

Fig 32

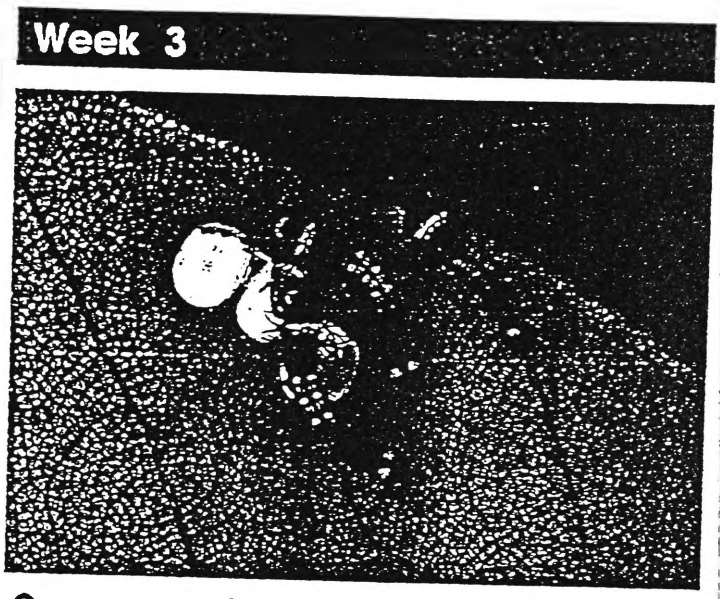
Different intellectual and writing achievements are evident in two pieces of writing Kate did after Shared Book sessions on Caterpillar Diary and The Life of the Butterfly.

Each page in Caterpillar Diary showed the changes which took place during particular weeks in the caterpillar's development. Figs 33 and 34 are examples of the pages for weeks one and three.



It's the first week of summer. This morning I found some tiny eggs on a leaf.
I decided to keep them to see if they hatch.

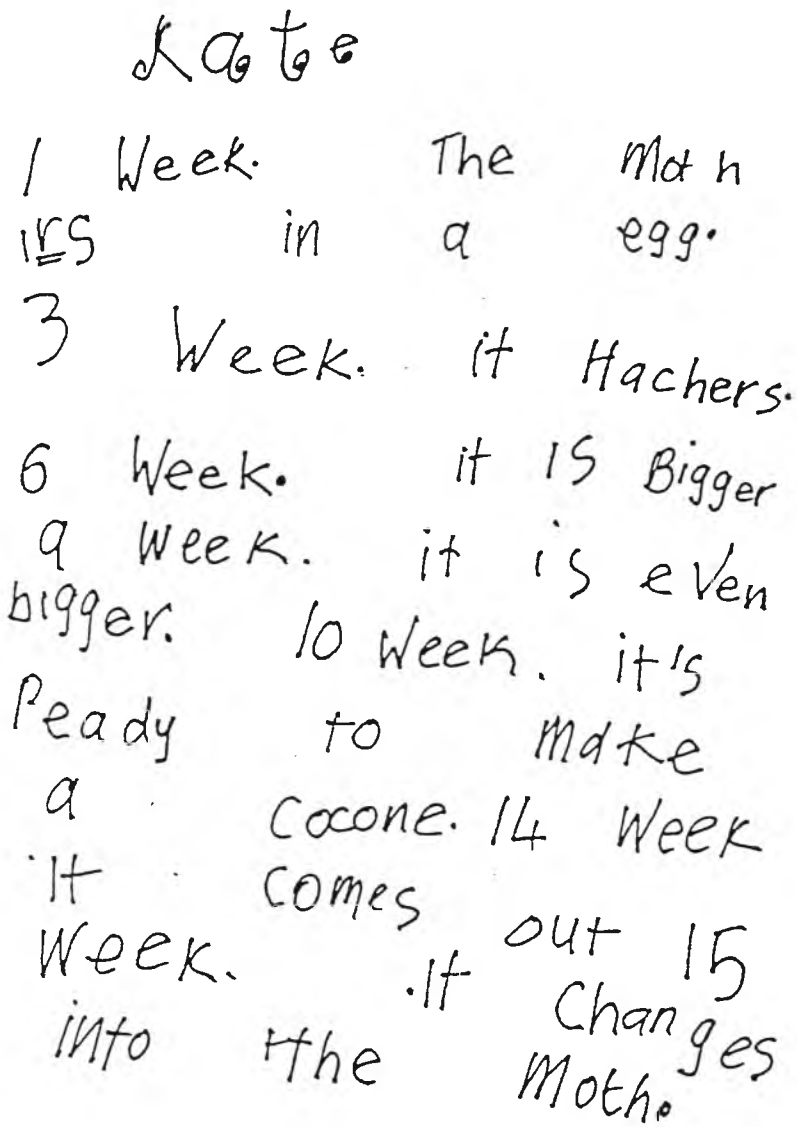
Fig 33



Some of the caterpillars have hatched at last. They're eating their own eggshells.

Fig 34

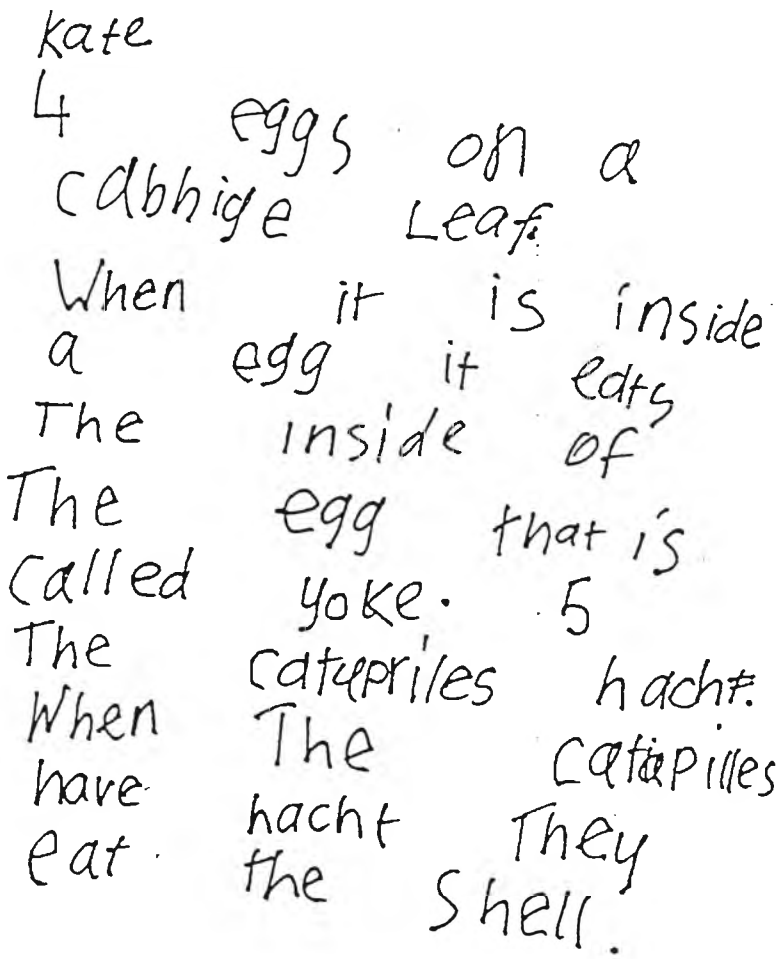
In Fig 35 it is clear that Kate used the diary form found in Caterpillar Diary but her text was quite different from that in the book. Kate had written her own series of captions for most of the pictures in the book. She had been very selective in the information she wrote about, deciding to focus mainly on the changes she remembered. This approximation of the diary form and her own observational notes was an interesting departure from the prose forms she used to structured her texts to date.



1 Week. The Moth
irs in a egg.
3 Week. it Hachers.
6 Week. it is Bigger
9 Week. it is even
bigger. 10 Week it's
ready to make
a cocone. 14 Week
it comes out 15
Week. it changes
into the Moth.

Fig 35

So too was the piece which was written a week later about Life of the Butterfly. In this piece (Fig 36) Kate has copied the headings for pages four (Fig 37) and five (Fig 38) of the Life of the Butterfly but she wrote her own text for each page.



4 eggs on a
cabbige leaf.
When it is inside
a egg it eats
The inside of
The egg that is
call yoke. 5
The catupriles hacht
When the catapilles
have hacht they
eat the shell.

Fig 36

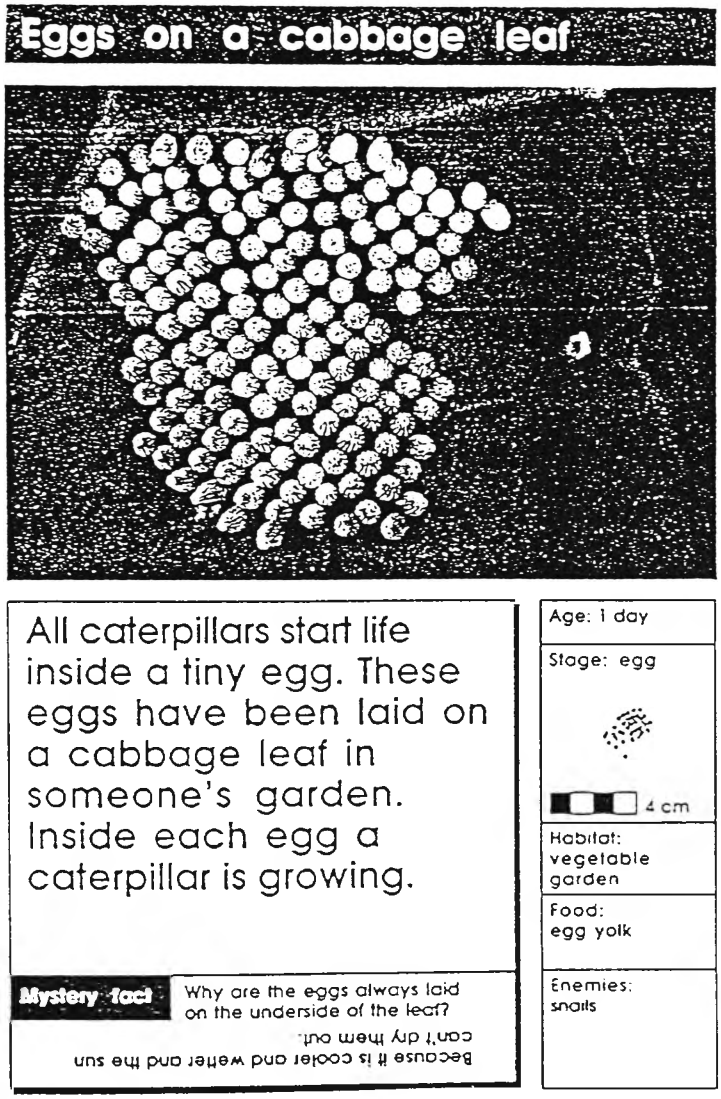


Fig 37

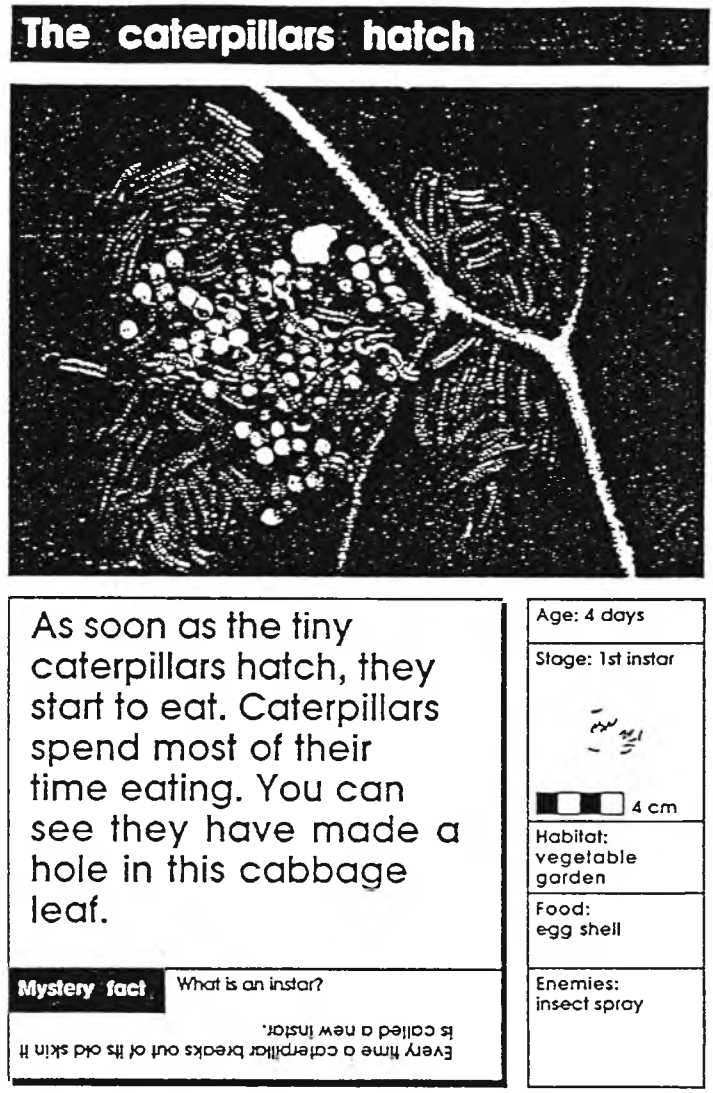


Fig 38

The information Kate presented has been drawn from the original text, the pictures and from a table on the pages. Kate's statement about the topic created new information which may have emerged from the class discussion during the Shared Book session. The fact that the caterpillars eat the inside of the egg is not explicitly stated in the original text. The information about the caterpillar's food being egg yolk is presented as two words in a table but Kate has combined this information and created a more explicit statement about what was happening.

Her text certainly was not simply a copy of what was in the book. Kate demonstrated she could take information from a variety of sources and summarise it in her own words because it was her own thinking. She was able to make connections and relate information in quite sophisticated ways. Kate borrowed ways of structuring from the books but she used them to express her own meanings.

Although Kate's writing demonstrated that she was gaining control over ways of using language and structuring information that belong to the world of non-fiction her final piece, Koala Diary almost provides a show-case for what she learned and her achievements as a writer of non-fiction. Kate could orchestrate all the complex aspects of non-fiction writing, such as ideas, language, structure and illustrative material to create a well organised, focused and coherent piece of writing which reflected her ability to think clearly and systematically about a topic.

In her project Kate provided different categories and information about koalas, such as its growth, aspects of its appearance and behaviour and its diet. Her contents page (Fig 39) demonstrated how she organised her information.

Throughout her project Kate used a consistent pattern presenting information. She provided information through both text and illustrative material and she used a consistent layout for each page which is demonstrated in Fig 40.

Contents	Page
were they take them	3
diary	4
aboat claws	5
Babby Facts	6
gum levase and uycluptets leaves	7

contents.

Page

Where they take them 3

diary 4

aboat claws 5

Babby Facts 6

gum Levase and Uycluptets Leaves 7

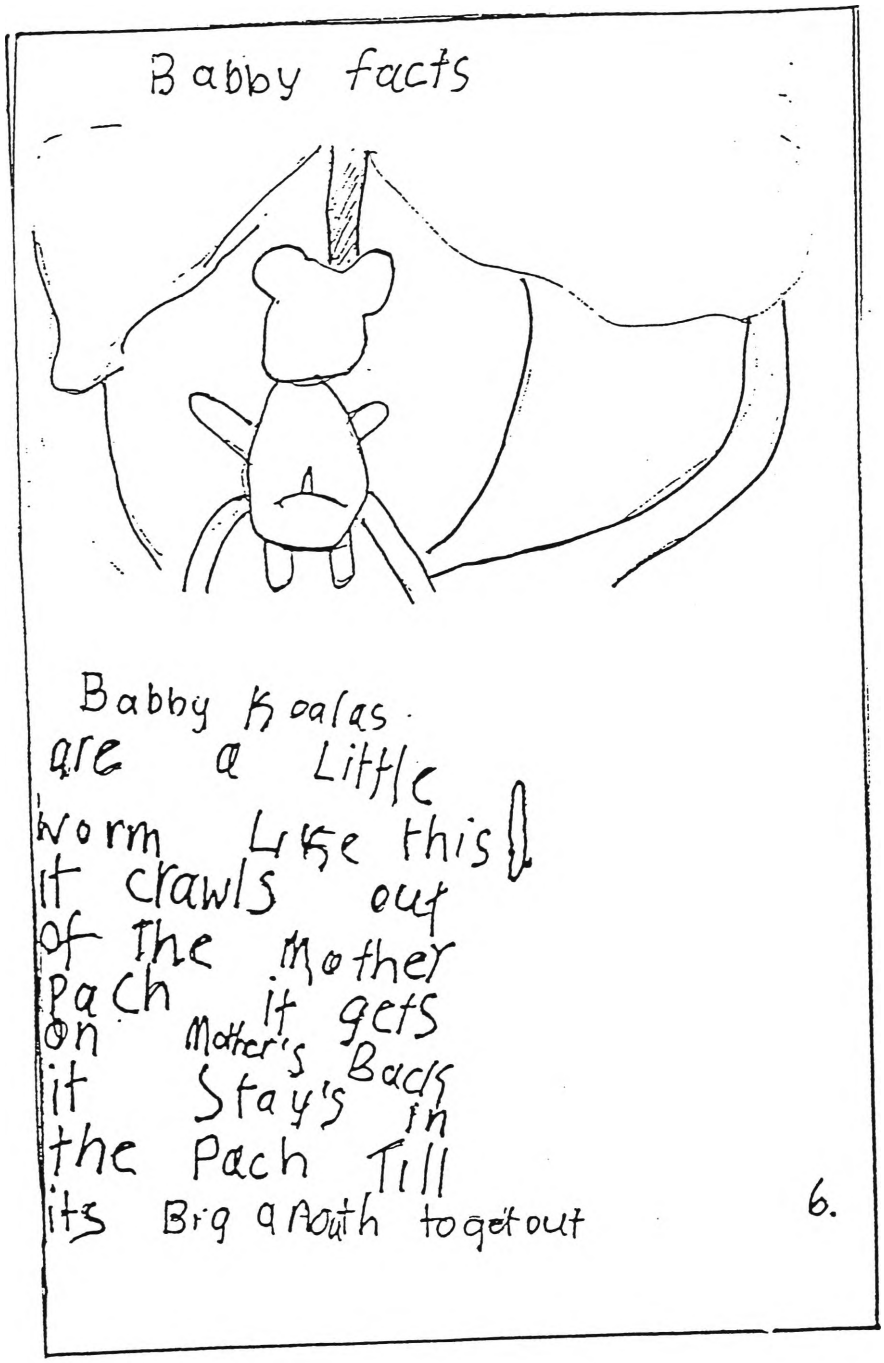
Fig 39

Fig 40

She used headings, page numbers and a block of print into a right hand side column under the picture. This is typical of the layout found in a number of the enlarged books she saw during the Shared Book sessions.

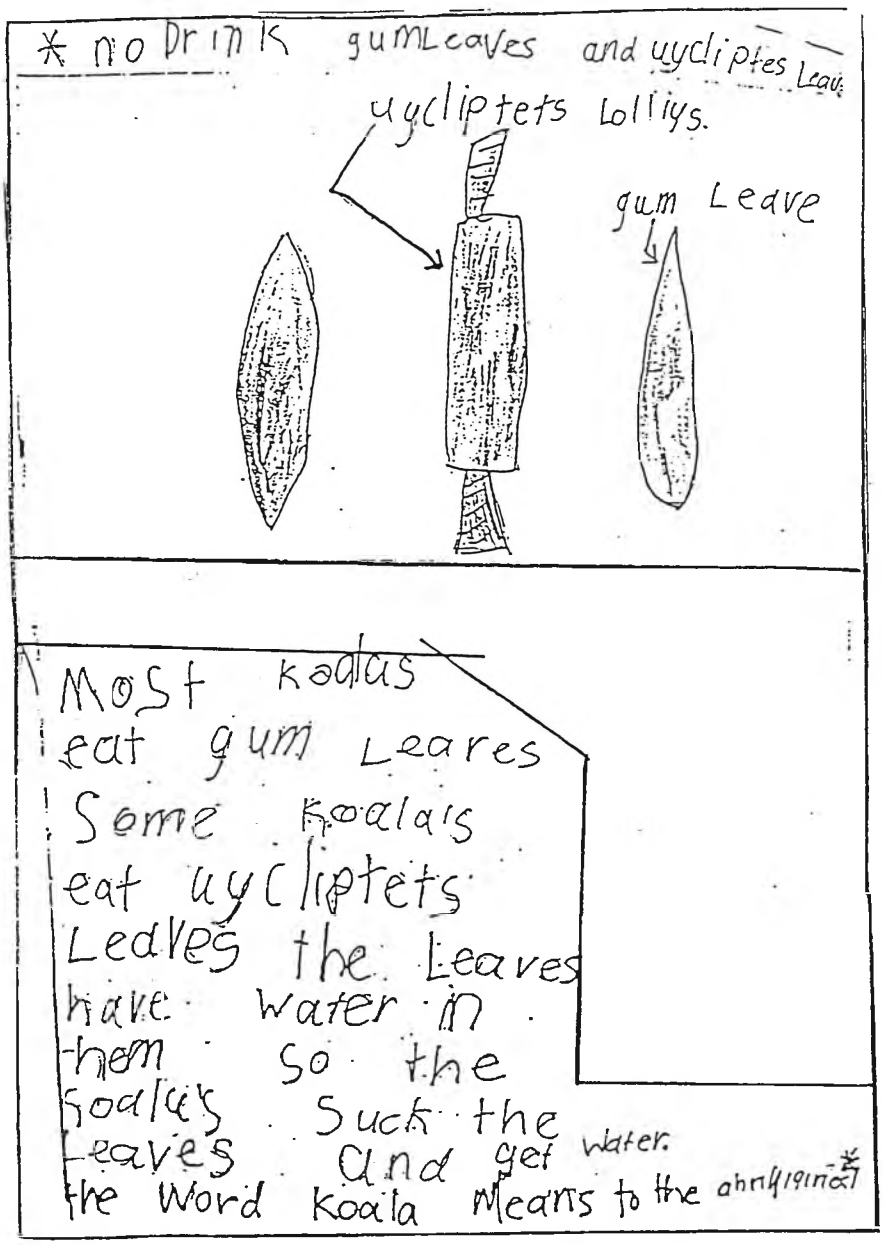
It is evident also that Kate's reading of non-fiction had taught her the power of illustrations as a means of providing information. In Fig 40, Kate has combined ideas to create a way of showing not only the growth of the koala over time but also comparison between the relative height of a human figure and the koala at each stage of development. This was a clever means of conveying a great deal of information in a succinct way. While this kind of illustrative material required Kate to expend a good deal of intellectual effort it may however, also have served to reduce the demand for writing description and detail which could be an overwhelming challenge. Kate's use of an illustration in Fig 41 seemed to be a parsimonious means of showing the comparison between the appearance of a worm and of the baby koala.

The text in Fig 41 demonstrated some of the ways in which Kate could structure her information. She began by giving a definition of a baby koala and then tried to give a description of what the baby koala does after it is born. In Fig 42 Kate began her text with a generalisation about the staple food of most koalas. However, both in her first and second sentences she modified her statements with terms like "most" and "some". Kate then provided a general description of the leaves and how koalas obtain water from them. At this point Kate went on to give a definition of the Aboriginal word koala.



Babby koalas
are a little
worm like this
it crawls out
of the mother
pach it gets on
Mother's back
it stays in
the pach till
its Big anouth to get out

Fig 41



Most koalas
eat gum leaves
some koala's
eat uycliptets
leaves the leaves
have water in
them so the
koala's suck the
leaves and get water.
the word koala means to the aborigines*

*no drink

Fig 42

Her use of the asterisk to indicate the continuation of her text was a very clever strategy to overcome the problem of running out of space. It showed she had some strategies for manipulating text.

Another feature of her writing in this project was her use of the precise language appropriate to the topic, such as pouch, claws, eucalyptus leaves, and the use of pronouns, such as it, they.

Kate's achievements as a non-fiction writer are considerable. While still only in her second year of schooling Kate was able to:

- write on a variety of topics;
- write different types of texts;
- use the precise vocabulary appropriate to her topic;
- use the complex kinds of syntactic patterns found in non-fiction texts;
- make comparisons;
- draw together information from different sources;
- borrow and adapt the kinds of page layouts used in the non-fiction big books;
- adapt and use a range of visual devices to convey information; and
- understand her reader's needs.

Obviously developments such as these were not beyond the capability of this six year old.

5.3 DISCUSSION

The examples of writing from these six year olds, revealed that they could write non-fiction texts. They could appropriate the features of the non-fiction texts they read and use them to construct their own texts. The children's products demonstrate that they were not just copying or mindlessly imitating the features of the texts they have read. Rather, they selected, combined and adapted ideas to help them express their own meanings. Furthermore, most of the children's products reflected their understandings about topics and how to present information. Their products therefore provide insights about the features of texts to which the children are attending and the features which they see as useful.

It is apparent that the ability to write non-fiction texts was not limited to only some children in the class. All the children could compose texts, although some children needed help to transcribe their ideas. So although the children in Sue's class had varying experiences and understandings about literacy, they were able to learn from reading and to apply some of their understandings in writing.

However, the children's development as writers of non-fiction did not just happen. The teacher's instructions through the Shared Book Experience sessions had a powerful impact on what the children learned to do. There seemed to be a range of factors which influenced the development of these children's competencies as non-fiction writers.

The children were exposed to a variety of models of non-fiction texts which were deliberately designed to give young children access to all the appropriate features of good non-fiction texts.

Such models of non-fiction can provide children with information about how different text types are structured, how they function, what kinds of things can be written about and what kind of language can be used. The quality of what children read is highlighted by Martin (1985).

> "... we need to look at what our students read. Models of factual writing come mainly from text and reference books. If these are badly written, we are providing students with poor models for writing". (p. 81)

Children are more likely to acquire the mutually understood conventions for various forms of written language if they have "encounters with many and varied models" (Nancy Martin 1983 p. 113). Sue provided children with such encounters. The importance of exposure to good models and their influence on what children write is a key factor in children's writing development (Christie 1987, 1988; Hammond 1986; Langer 1985, 1986; McGee and Richgels 1985; Newkirk 1985; Piccolo 1987).

However, it is not just the exposure and access to models that is important. That is only part of the experience the teacher offered. The way in which the children gained access to models was also a prime influence on the development of their understandings about non-fiction. The children encounters with the non-fiction texts were embodied in the demonstrations which the teacher provided through the Shared Book Experience sessions.

In these sessions the teacher engaged the children with the content of the book; she expected them to learn and guided them to do so; she raised the salience of features of text she wanted the children to attend to (Cambourne & Turbill 1987); she showed them how to locate and interpret

information; she helped them to deal with the language of non-fiction, with print conventions, illustrative material and layout conventions. She did all this, however, not with the explicit intention of teaching the children how to write, but with the primary intention of helping them to learn new information and to learn how to access it through reading. That is, reading was used as a tool for helping the children to "view their world through new eyes" (Harste 1990 p. 318).

In order to help the children to deal with the particular challenges which non-fiction presents and to help them to develop an appropriate orientation to and expectations of these texts, Sue explored with the children all the features of these texts. Even though reading and writing are separate processes, they both focus on written language as a system for constructing meaning (Gibson 1989). Therefore the understandings children gain about written language, through reading, can be used to construct their own messages in writing.

Some aspects of the inter-relationship between reading and writing are highlighted by Harste, Bourke and Woodward (1982):

> "What the child learns about language from having read a book for example, becomes available linguistic data for output in another expression of language, like writing" (p. 129)

> "What is learned in one encounter becomes the anticipatory data available for subsequent encounters" (p. 129)

In other words, "the children's immersion in different text types demonstrated how the were written" (Cambourne 1988).

But this does not necessarily explain why the children readily transformed and used their understandings about reading into writing non-fiction text themselves.

As Barr (1985) says, "the reader needs to pay attention to the style and the characteristics of the writing only in so far as they contribute to the substance of what's being said", but she goes on to say that "the writer ignores them at his [sic] peril, for they are his [sic] very pass key to success as a communicator" (p. 107). So the fact that the children in Sue's class were also expected to write about their understandings of what they read, may have helped them to read with a writer's eye for detail. Most of the writing tasks set by Sue followed immediately after the Shared Book sessions, so that the timing may have had an influence on what the children did. But the kind of tasks Sue set were also important.

Most of the tasks were open-ended in nature, which meant the children had the freedom to choose what they wrote and how. The importance of such freedom is highlighted by Nancy Martin (1983).

> "When children are free to select and order as they wish, they are also free to draw consciously - on the language resources that are in their inner ears from reading, from television, from their teachers" (p. 113).

However, this does not preclude the teacher from having children consciously use an explicit model to construct their own texts. Sue did this with two writing tasks, when she had them model their texts on the games books, Animal Clues and Mystery Monsters, which were highly predictable. The children enjoyed these books in the sessions and were highly motivated to write their own and try them out on their classmates.

The children's high level of interest and the predictable nature of the model they had to innovate on probably contributed to their success.

Generally, writing tasks did not require the children to focus on particular features nor did they require children to demonstrate their understandings of a particular set of knowledge. Rather, the focus was often on the changes to children's knowledge as a result of their interaction with the books. Harste (1989) suggests that this focus on change, on what the children learn, is a feature of whole language classrooms and teaching. In many respects, the focus on change and on learning has the potential to encourage children to be more reflective and to have a great awareness of their own learning processes.

Implicit in this focus on change is the clear expectation that children will be different after instruction than they were before. The tasks which encouraged the children to say what they learned carried within them a clear expectation that they would learn something. The other tasks suggested that the children did know things about their world and that they could write them. Overall, there was a clear message that they were learners.

Collectively, the children's written products demonstrated they had appropriated the following features of non-fiction texts.

- organisational features such as contents, index, headings, page numbers, title page;
- illustrative material such as "realistic" drawings, labelled diagrams, comparative charts and drawings, scales;

- layouts which were predictable and consistent and which combined text, headings and illustrative material;
- kinds of texts such as reports, explanation processes, games, opinions;
- precise use of language such as nouns to describe classes of things, abstract nouns, nouns to label specific things, verbs describing quite specific actions, adjectives describing attributes and those describing behaviours;
- complex sentences;
- ways of structuring texts such as comparison, definition, classification, generalisations, explanation, description; and
- ideas and information such as attributes of animals, where animals lived, the children's opinions.

One of the most significant insights which emerges from the children's awareness and use of such features is that they reflect some of the intellectual processes which children were carrying out. Written language, as Donaldson (1988) argues, has an "effect on thinking itself - especially the ability to sustain thought and put thought into order" (p. 23). Furthermore, it has the potential to encourage the kind of thinking that goes beyond the personal into generalities about the world and how it works. The children's writing provides evidence that they could sort, classify, select, generalise, compare and contrast, define and connect information. All of these are key intellectual processes necessary for learning and for shaping their reality in systematic ways. These children have entered into and begun to explore the "different ways of knowing" which are embodied in different disciplines (Derewianka 1990). They are developing in their capacities to form a new kind of knowledge which goes

beyond their personal and common-sense experience of the world (Christie 1988).

5.4 CONCLUSIONS

Children, in their first few years of schooling can learn to write non-fiction texts. They can appropriate the features of the non-fiction texts which they read and use them to construct their own texts. Their written products can provide a window to their understandings about the features of non-fiction texts.

CHAPTER 6: BECOMING NON-FICTION READERS

A fundamental requirement for learning to read is an awareness of the satisfaction reading offers. The multi-faceted satisfaction young readers find in books drives their desire to tackle the challenge involved in learning to read for themselves (Holdaway 1979). So if non-fiction material is to provide a strong motivation for children to read and to learn, then it must pique their curiosity. It must allow them to discover more about the things they already know and invite them into the realms of the unknown.

Children's engagement with what non-fiction books offer is important not only because it provides a powerful motivation to read but also because of the self confidence that children develop when they are aware of what they know and can do. For instance, Nichole revealed a great deal about her self-confidence when, in the midst of reading one of the non-fiction big books to younger children, she said, "We're lucky to know all this!" She had a sense that she had benefited from her experience with books.

6.1 CHILDREN'S FASCINATION WITH INFORMATION

Nichole, like the other young readers in her class, was driven to face the challenges of non-fiction reading through her fascination with the information to which she was exposed.

There were many instances where the children demonstrated different types of engagement with the information found in the non-fiction books. These types are discussed below.

Modifying Understandings

In one of the interviews, Kate expressed her surprise at finding that the ostrich was the largest bird. This information seized her attention because she believed that the ostrich was only the world's fastest running bird. The realisation that it was also the largest bird demanded that Kate revise and extend her understandings to include this new information.

Similarly, Alicia found that she had to modify her ideas about a dragon. In an interview situation Alicia was thumbing through the pages of the Book of Animal Records to locate the map which shows where the animals are found. The label Komodo Dragon caught her eye and she exclaimed, "Dragon! What's a dragon - dragon-flies or what?" After Alicia had located this item in the index and turned to the page number, she looked at the photograph and said, "Here's a Komodo Dragon - it's a lizard! I thought it was a dragon". When asked why she thought that is was called a dragon, she replied, "The face is like a dragon and its skin is kind of..., it has claws at the front. I don't know about the back." Alicia knew about the mythical dragon found in fiction and about dragonflies, but this new creature had her intrigued.

Such incidents demonstrate that these six year olds are learning from texts and carrying out some of the intellectual processes. Such as confirming information, seeing discrepancies and revising their ideas that are so necessary for growth and development as learners and readers.

Articulating New Knowledge

On many occasions, the children were able to talk about the new knowledge they had acquired from the non-fiction books. For instance, Karen said that she had learned from Caterpillar Diary, that "caterpillars shed their skins ... some turn into moths and others turn into butterflies ... the caterpillars get out of the eggs and eat their shells". Karen was not the only one to be intrigued by this new information. Karl also, provided an apt explanation of the caterpillars shedding their skin. He said, "... they move and their skin stays.... they leave it behind".

Karen expressed her surprise at finding a particular animal in Large Marsupials. She said, "I didn't know the wombat was in here". Karen did not expect to find this animal here because she had not realised that it was a marsupial. Further along in this same book Karen looked at the diagram of the kangaroo's footprints and remarked that they looked like our hands. She also observed that the paw prints of the wombat looked like our hands as well. It is apparent in this example that Karen can actually generate new information for herself from her interaction with these texts and that she expects to make sense of what she sees and reads in books. It further shows that she has learned how to attend to and interpret information which has been presented in visual forms.

All the children were able to understand the function of the kinds of illustrative material such as labelled diagrams, scale diagrams, photographs, drawings, comparative charts, distribution maps, found in the books they read. The photographs were a source which the children "mined for information". Karen, for example, kept up a running commentary as she flicked through Large Marsupials and studied the

pictures. She looked at a picture of a Quoll and said, "Oh! They have white spots and black fur ... they have pink noses!". Similarly, Kevin was able to interpret a map of Australia which showed where Dunnarts can be found. He pointed to the map and said, "The long tailed Dunnart lives there. It lives in two places".

Grappling with Difficulties

The children readily understood the function of the different kinds of illustrative material. However, some aspects of the illustrative material presented difficulties which they could not overcome without help. These usually arose because the children could not read the numbers or the associated print. For instance, when Kate was asked how tall the red kangaroo was, she knew that the information was in a table but she could not read the numbers successfully because they were written in decimal form i.e. 1.4 male:1.1 female. She had the same problem when she tried to read the height of the ostrich (2.5 m) in The Book of Animal Records. Even though the illustrative material frequently challenged various aspects of the children's competence, they were highly motivated to talk about the different kinds of illustrative material and to grapple with making sense of them.

Sometimes the children stumbled because they could not read the print associated with the illustrative material. Nichole was not able to read the print on a legend for a diagram of a caterpillar. However, when the print was read to her, she could easily locate the corresponding colour coding on the diagram. For instance, when she was told that the word next to the red block was "feelers" she could locate the section on the diagram and explain what the feelers were.

Enthusiasm for Non-Fiction Books

Another demonstration of the children's fascination with and commitment to reading non-fiction books was the fact that they chose to read these books in their own time and in other reading practice lessons. Their teacher reported that they were drawn to the books time and time again to delve into what they had to offer.

Each time I arrived at the school on the scheduled mornings, the children greeted me with questions about what I had for them for the Shared Book sessions. They too, brought their own books to class and shared them with the teacher, other children and with me. For instance, Kevin brought his book on creatures in the sea to show us the entries about the Whale Shark and the Blue Whale, which they had read about in The Book of Animal Records. Another child, Damien, brought his book about Dinosaurs to compare its dinosaurs with the dinosaurs they had read about in Prehistoric Giants.

The children's involvement with the topics of the non-fiction books used in the Shared Book sessions created a classroom climate where the construction and sharing of knowledge was highly valued. This climate supported children to be readers and thinkers and to realise that learning from reading was an enjoyable and worthwhile thing to do. Furthermore, the challenges which these books presented to children's thinking resulted in an increased sophistication in their use of language. They were not only able to think about the information, but also to "talk like non-fiction books".

6.2 TALKING LIKE NON-FICTION BOOKS

The children's discussions in the Shared Book sessions and in the interviews showed that they were using for themselves the language of non-fiction books. At the same time that the children learned the information in the books they learned the language with which to express the ideas, actions, attributes of the things they were finding out about. Because they were being challenged by new and intriguing information they had to grapple with and acquire new ways of talking about their understandings.

The children began to be precise in their use of vocabulary. For instance, they used vocabulary such as:

- nouns to describe classes of things e.g. dinosaurs, reptiles, mammals, marsupials, fossils
- abstract nouns e.g. shelter, habitat, life-cycle
- nouns to label specific things e.g. pupa, cocoon, claws, scales
- verbs describing quite specific actions e.g. shed, spin, mate
- adjectives describing attributes e.g. webbed
- adjectives describing behaviours e.g. nocturnal

Using Metalinguistic Terms

Children not only learned the vocabulary related to the content of the books, they also learned to use the vocabulary pertaining to the books themselves. They could talk about contents, index, glossary, author, illustrator, title page, illustrations, photographs, page numbers, and terms relating to how information was presented such as diagrams, tables, check-lists. For instance, Karen stated that these non-fiction books were

good because they had "good illustrations and good writing". Kevin, in response to a question about what the teacher showed them in books, said, "She shows us the contents, the glossary and the index".

When reading Caterpillar Diary to a younger group of children, Kate and Alicia pointed out, labelled and explained the title page, the contents and the index in the book.

The children's command of these metalinguistic terms enabled them to talk about what the authors and illustrators had done and to discuss more precisely how the books were organised and how they could be used.

6.3 UNDERSTANDING THE FUNCTION OF NON-FICTION BOOKS

It was apparent that the children understood the functions of non-fiction books even if they could not always read them independently. It has been argued that understanding function is an essential feature of children's language learning (Holdaway 1979, Halliday 1975, Y Goodman 1983, K & Y Goodman 1979).

When the six children who were the major research informants were asked about why they thought their teacher had been showing them these big books, they all responded with the idea that Sue was trying to help them to learn things. They understood that these books told them about the real world. Some of the children also mentioned that the books presented particular kinds of information such as what animals looked like and where they lived. These latter comments show that the children have clear expectations for the categories of information which they are likely to encounter in such books.

Karl demonstrated his awareness of the informative function of non-fiction books when he was talking about his favourite book at home - an encyclopaedia. He said it was his favourite, "Because it shows you what you can make and what you can do and learn. If you play soccer it's got a picture of soccer and how to play it". He also showed he knew that books were divided into categories and that non-fiction books could be used to find out information he did not know. For instance, when he was asked how he could find out whether the Pterosaur ate fish, he said, "I could get a book from the library - there is fiction and non-fiction. You can find it in the non-fiction".

Karl, knew that non-fiction books could also be a guide for action such as the instructions in the games books. For instance, when Karl wanted to play the game in Animal Clues, he located the instructions and read them so that he knew how to play the game. The fact that children also went back to the books to retrieve information they had forgotten indicates they also understood the "function of written language as an extension of memory" (K Goodman 1984).

None of the children ever talked about the non-fiction books as stories. They clearly understood the difference between non-fiction books and the fiction with which they were familiar. Furthermore, the children were able to use the books for a variety of purposes in both group and individual settings.

6.4 USING NON-FICTION TEXTS FOR DIFFERENT PURPOSES

In a small group setting, the research informants were placed in two groups of three and were invited to play a game which was included on the back cover of Mystery Monsters. (See Appendix III.)

Following Directions: Making Decisions

The game rules required each player to select which creatures they would be. For example, they could be a crab or a cicada. Players take turns to throw a dice and move their counter along the number of spaces that come up on the dice. On each space there is an attribute which might be applicable to the particular creature the player has selected. For instance, if the player is a "crab" and lands on a space which lists eight legs as an attribute, the player has to decide whether this attribute applies to her/him. If the player gives the correct answer s/he has another turn.

In this game setting the children had to read the instructions and what was written on the spaces on which they landed. That is, they had to read to obtain directions for the game and to make decisions about how the attributes on the squares compared with those on the animal they had selected.

Using Books to Locate Specific Information

When the children were playing the game, they all sought out and used the "little" versions of the Mystery Monsters book to find the information they did not know about the creature or to check on information about which they were unsure. Even Nichole who could not independently read the text used the books in this way, but she relied on clues in the photographs to get the information she wanted.

The significance of the children's behaviour, in these settings is that it demonstrated that they could use the book as a resource. They clearly indicated they understood that books can be used as a reference or resource to help them to carry out other activities.

This use of non-fiction books as a resource was also evident in one of the group tasks where the informants were put into two groups of three and asked to write about an animal they had not read about in the non-fiction books. In this instance, Karl decided that he wanted to focus on a dinosaur and so he used a frieze of dinosaurs which accompanied and extended Prehistoric Giants. Karl, Kate and Alicia used the frieze, which contained a drawing and a chart of specific details, as a source of information about the Pterosaur such as what it looked like, its size and what it ate. Karl, Kate and Alicia, therefore, demonstrated their understanding of how to use different materials to help them to select a topic and locate relevant information to carry out their task.

Using Books to Locate and Verify Information

On other occasions, the children used the non-fiction books as a source of information about the spelling of words or as a means of verifying specific information. The children used the books to check spellings when they were writing about what they had learned from the books in the Shared Book sessions.

Karl's sentence, "The mos hos long tay and the Bandicoots", provides clear evidence that he has used the book to find out the spelling of the word "bandicoots". Frequently, the words that the children checked were

specific names or precise content words which they knew were in the books and which they wanted to spell accurately.

Rarely did the children copy "chunks" of information verbatim from the books. They were always highly selective and very purposeful in their interactions with these books.

Usually, each child came to talk with me when they had finished writing. They were asked to read aloud what they had written and we then discussed their ideas. I would often then ask them to locate in the big book the information or items they had written or talked about.

Kate, for example, wrote that she had learned that the ostrich was the biggest bird. She was asked to locate this information in The Book of Animal Records. She quickly located the entry in the contents, read the page number aloud, then flipped over the pages to the appropriate place and read the information.

Nichole, during the same writing session, said that she had learned about the bird that flies the longest distance. When asked the name of the bird, Nichole said that she couldn't remember what it was called. In reply to a further question about where she found out about the bird in the first place, Nichole said, "The Book!". She promptly went to the big book which was on the floor at the front of the classroom. Nichole remembered that the colour code for birds was green, so she proceeded to find the pages which were headed with green blocks of colour. Nichole then pointed to the picture of the Sooty Tern (which was not the correct bird). The one she wanted was next to the Sooty Tern. However, her

approximation was very close especially when she selected from six bird entries, none of which she could read. So even though Nichole could not read the print, she could use an organisational device like colour coding to locate information.

These situations revealed the kinds of understanding and strategies the children were developing for efficiently locating and verifying information in relation to a set task.

6.5 AWARENESS AND USE OF ORGANISATIONAL FEATURES OF NON-FICTION TEXTS

The ways in which the children dealt with the demands I made on them in interview, were indicative of their understanding about the organisational features of these non-fiction books. For instance, in early interviews with Karl his major strategy was to flick through the pages until he came to the relevant section. He, like some of the other children, confused the contents with the index. He understood the function of the contents, but not the more specific function of the index.

In the following extract from an interview, Karen's confusion between an index and contents is obvious. Karen was asked if she knew another way of finding out, other than by means of the contents, where the Blue Whale could be found in The Book of Animal Records.

Karen:	*You could just look around to see if you can find it, I can't think of another way*
Researcher:	*Do you know what an index is?*
Karen:	*I've forgotten what it is*

Researcher: *Could you find the index in the book?*

Karen: [She turned the page, till she came to the map at the back of the book]

Can't remember if it's in the back or the front ... it's the back. Oh! That's the map ... Glossary! Can't remember where it is ...

[turned next page]

Oh! There it is - the index [she read the heading]

Researcher: *Can you find the Blue Whale in the index?*

Karen: *No ...* [looked down the list of words]

Researcher: *What are you looking for?*

Karen: *Blue Whale*

Researcher: *What does it start with?*

Karen: *"B", the other starts with "W". Can't find it*

Researcher: *Well if you can't find it under B, what was the other letter?*

Karen: *There's B - it's not under B, it could be under W*

[scanned for W words]

Researcher: *Point to the W words for me*

Karen: *These two* [pointed to 2 words]

Researcher: *Can you read them?*

Karen: *No*

Researcher: *I'll read them* [read out whale, whale shark]

Karen: *So it must be that one - whale - it's on page 4*

Karen's struggle demonstrates very clearly the complexity that confronts beginning readers when they try to use an index to locate information. It is not a simple or straight forward task.

The children seemed to be working on a general concept of a list for locating the page numbers but couldn't yet differentiate between an index and contents. For Karl, as for the other children, this changed over a ten week period, so that he could locate either the contents or the index, identify what he wanted to find and locate it in the books by following the page numbers or by turning the pages over in chunks as most adults do. The children moved by a series of successive approximations towards a set of behaviours which was more like an adult model.

This growing refinement in the children's competencies was also evident in their ability to use other organisational features such as headings. All six children could point to the headings on the pages if asked. This means that the children understood the function of headings and could recognise and identify them on the relevant part of the page. However, even though Karl and Nichole could usually locate the heading, they were often unable to actually read what it said. They had to use the picture clues, where available, to help them.

Applying Their Understandings to Writing

The children demonstrated their understandings about the functions of the organisational features of non-fiction materials in their written products.

As the earlier chapter on children's writing shows, these children knew a good deal about how texts were organised. For instance Kate not only

used a contents in her Koala project but used headings for each page, page numbers and presented information in visual forms such as labelled diagrams and a comparative chart (see Figs 40, 41, 42).

The children's decisions about their choice to organise and structure their projects were revealed in the interviews. In reply to the question as to why she had put a contents in her book, Kate said, "So that you know where the pages are and what you want to see. Like if you wanted to see 'where they take them' [an entry in Kate's contents], I have to turn to page 3". In response to the same question, Karen said, "Well, so people wouldn't have to keep on searching for information so they could find it. That's why I put a contents in." Both children were aware of the reader's need for ways of accessing information in the texts they were producing themselves. Karen demonstrated she understood too about the relationship between contents and headings when she explained why she had included them. She said, "So the people would know what is was. Like on the contents, it's got 'what they eat' and they go to page 2 and it says what they eat."

Kate was not only aware of ways of organising and structuring information, but also of the importance of a consistent layout of print and visual information on each page. When asked why she had constructed each page in the same way, Kate responded, "Because in most books there are all the same pages. You see ... well ... on all of the pages they have bits where the writing is, so I put them in the same spot. And if you read one page then you know the second page is going to be the same and you know where they are." Kate deduced from her reading some of the ways in which writers create predictable text for their readers.

It is evident from these examples and those in Chapter 5 that these six year olds had analysed organisational features of the texts which had been presented to them and were then able to apply these understandings to the creation of their own new texts. It is clear that they understood the functions of various organisational features of text and could use them in both reading and writing transactions.

More significant though, is the evidence that they were able to structure the information they gained into the kind of intellectual framework they have been exposed to through the non-fiction big books. Alicia's piece on dinosaurs shows she can structure her text using a pattern of providing specific information which concludes with a generalisation. For example, "I like the Tyranosaurus it ets uthr and of dinosaurs it livs china North America it hase got sckayels every dinosaurs have got shup clooths".

Kate, in writing a contents for her project, shaped and organised the information she had gained from watching a television program and reading about koalas. When asked how she had decided what sort of things she would put into the book, Kate replied:

> "Well, I just thought about what they were and what they do and I just wrote down the contents. And I wrote down what they did and where they take things and things like that."

As Kate's response indicates, she has thought about how to organise the information she has collected. She is able to construct and organise her thoughts in the ways which are appropriate to Western European text conventions. In other words she, like Kate and Karen, shows she has entered the world of systematic thought (Donaldson 1988).

Presumably children who are developing this kind of understanding as readers are better able to make sense of what they read since they can employ knowledge about ways of organising and shaping information to make predictions about how texts are structured. They bring with them expectations which can probably facilitate their meaning making when reading.

The children's ability to see the connections between reading and writing non-fiction means that they have developed an appropriate orientation toward non-fiction. This orientation is most obvious in the confident way in which the six research informants were able to perform as readers of non-fiction when they read a big book to younger children.

6.6 PERFORMING AS A NON-FICTION READERS

In this section I shift the focus to exploring the children's confidence in reading aloud and sharing a non-fiction big book of their own choice with a small group of younger readers (new entrant five year olds from a Reception class in the unit in which Sue's class also worked). This task involved the six informants working in pairs (Kate and Alicia, Kevin and Karen, and Nichole and Karl) to select a book and to take the role of the teacher to share this text with the younger children. The pairs were given time to select a text and to prepare what they would do.

How each of the pairs performed in the Shared Book task shows something about what they attended to in their teacher's demonstrations and what they understood and could do as non-fiction readers. Only two out of the three of the pairs, Karl and Nichole and Kate and Alicia, are discussed in this section because the behaviours which Kevin and Karen

demonstrated were not significantly different from those demonstrated by the other two pairs.

Kate and Alicia

The book these girls selected was Caterpillar Diary which documents the growth and development of a caterpillar. The contents are organised into weeks rather than topics. (See Fig 43)

Contents

About this book	3
Week 1	4
Week 3	5
Week 6	6
Week 8	7
Week 9	8
Week 10	9
Week 11	10
Week 14	11
Week 15	12-15
Life cycle	16
Index	17
Moth or butterfly?	back cover

Fig 43

The actual text is written as a first person eye-witness account of the changes that take place. In other words it is a set of observations.

Kate and Alicia began their shared session by asking the children if they knew why there was a week missing in the contents listing. Then Kate explained. " ... if one week it was an egg and the second week it was still an egg - its still the same." Here she tried to help the group understand

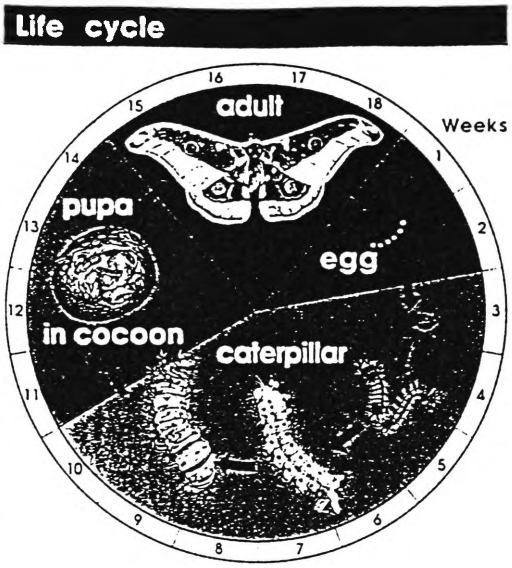
that the contents included only the weeks where changes took place so that the other weeks were skipped over.

Kate and Alicia then took turns to go through the text. Rather than simply reading the text aloud, both Kate and Alicia tried to provide a summary of the information on the page. For example, the following shows what Alicia said for page five and the text which she then read.

Alicia's Summary	Text
"These are all the caterpillars on the leaf and they come out and eat the shell and eat the leaf".	"Some of the caterpillars have hatched at last. They're eating their own eggshells."

On some pages they asked questions of the group also. For instance, when looking at page fifteen, Kate told the group that the moth was ready to mate. Then she asked, "Do you know what mate means?". Her response to the group's thunderous silence was the following explanation: "Well it means that they are ready to lay eggs when they get married."

Both the children also directed the group's attention to details in the photographs and diagrams. For instance, Alicia pointed out the feathery antennae, which are characteristic of the moth and Kate pointed out the spot's on the moths wings and explained that they were to scare birds away. Alicia also asked the group if they knew what the diagram (Fig 44) was. Then she said that it was a life cycle and explained how it worked.



Here is a picture showing my moth's life cycle. It's called an Emperor Gum Moth.

Fig 44

Just as their teacher had done in most of the Shared Book sessions the girls turned to the index page. Alicia asked, "Do you know what it's called?". After telling them what it was, she invited someone from the group to come out and find the word "eggs" in the index. The younger children did not respond so Kate pointed to the word and read it to a child they had asked to come out and find it. Then they asked the child to find the page where the eggs were, but she couldn't. Alicia and Kate then demonstrated how to read the number, turn to the appropriate page and find the word.

They invited the group to participate in another task which was one that their teacher had often asked them to do. Alicia asked the group to find a 'little' word in one of the 'big' words on the page. Again, none of the five-year-olds could do this task. Alicia went back to the index again and demonstrated how to use it. The last thing they did was to draw the group's attention to a comparative chart on the back cover of the book. Kate and Alicia took turns to highlight the differences between a moth and

a caterpillar. As they did so they added information that was in the main body of the book but not on the chart. For example, they stated that butterflies fly during the day - moths fly at night; they don't come out till it's at least $20^{o}C$.

During their Shared Book lesson these two six year olds accurately read the text and helped each other to correct miscues they alerted the group to what the text contained, they demonstrated how to use organisational features, they tried to focus the group's attention on letter detail in words, they asked questions (and answered them), they explained diagrams and they highlighted details in the photographs.

All in all, they performed with a level of sophistication which is rare for most six year olds. The fact that these two readers were sufficiently experienced to have knowledge of the function, structure, language, and layout of non-fiction and had gained automatic recognition for many words meant that they were able to cope with the many challenges involved in "being the teacher".

Karl and Nichole

Unlike Kate and Alicia, Karl and Nichole were both struggling readers. Karl could recognise some words and could slowly read sentences. He mainly used the strategy of sounding out when he was unsure of a word. Nichole recognised very few words and relied heavily on memory for text. If confronted with unfamiliar material she invented the text using available pictures as a guide.

Although they were relatively inexperienced readers these two children were very keen to try out this task and quickly chose Animal Clues to read aloud. This is a games book which has two parts. The first part requires readers to use the picture and text clues to guess the identity of animals. These clues are provided on one page and the reader has to turn to the next page to find the answer. The text and layout follow the same pattern from page to page so providing a high level of predictability. The second part of the book is another puzzle located on the cover of the back page. Only photographic clues of the heads of four insects are provided, and readers have to try and guess the identity of the insects.

Nichole and Karl coped quite well with the demands of the first part of the book. Not surprisingly, though, they focused very closely on the book and Karl, in particular, was absorbed in figuring out how to read the print. Nichole tended to rely more on her memory for text. And perhaps because she was not so controlled by the print she took the lead in asking the group their guesses to the riddles and in confirming or correcting their responses.

She also made comments as they went. For instance she asked some of the group how they had guessed the answers. It was during this event that she made her statement, "We're lucky to know all this". Nichole also alerted the group to the fact that they were coming to the second part of the book. She said, "Now we are up to the tricky part". Here she was signalling that they'd finished one game and were about to start another.

This part did, in fact, prove to be 'tricky' for Nichole and Karl. After Karl had repeated the first two words, of the text below (Fig 45), I intervened and read it for him.

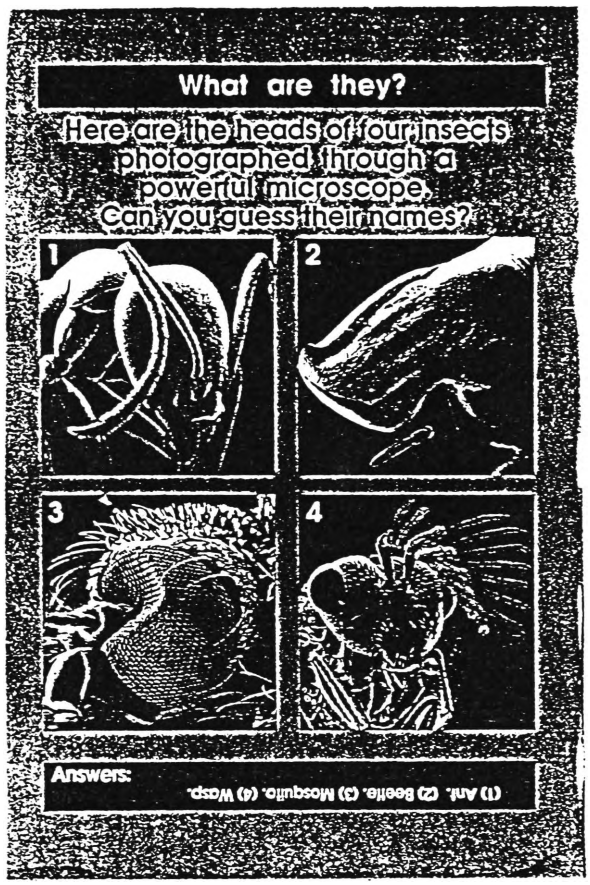


Fig 45

They asked the children if they could guess the creature in box No. 1.

However, I intervened once again to ask Karl & Nichole how they were going to help the group to understand about microscopes. Neither of them could do this at the time so one of the group proffered an accurate explanation. Interestingly enough, Nichole response was to say, "Good answer but not very right!" I then asked Karl and Nichole to repeat what they thought a microscope does. Karl said that it makes things bigger and Nichole said "better". When they went on to play the game Nichole was very aware of the numerical order of the photographs. Both of them knew that the answers to the questions were written upside down at the bottom

of the page beneath the pictures. However, they could independently read only the words "ant" and "wasp" so I gave then the words "beetle" and "mosquito".

Once they had finished this game, Karl turned the book back to the front cover and began to read the title - Animal Clues. At the same time Nichole pointed to the photograph on the cover and said, "Now at the start we have the wing of the butterfly". Karl turned to the page which had the large photo of the spider and studied it. Nichole asked the group how many eyes the spider had. One child said, "I forgot how many eyes. How many legs does it have?" And Nichole responded by counting the eyes and legs in the photograph. They then repeated this information for the group and pointed to the picture and counted them out again.
Karl and Nichole then looked at the frog, starfish, lizard and crab in sequence. Karl and Nichole counted out the features for these creatures as well, Nichole also added information which was in the picture but not in the text. For instance she said:

"the frog was slimy and lived in water"

"the starfish has a mouth"

"the legs of the frog .... they stick them on the leaf"

"well this thing (the butterflies' proboscis) *is for getting nectar out 'cos its sticky"*

"the wing (butterfly) *is the same as the one on the front of the book"*

"crabs have two nippers and four legs. We only have two legs"

"and it's got a blue tongue" (the lizard)

These comments and behaviours indicate that Nichole could confidently and accurately extract information from non-fiction books even though she was not able to read the print. She could also relate and connect information from the books with her existing knowledge of topics. Evident, also, in Nichole's comments is her familiarity with the specific vocabulary such as "nipper", "nectar".

In their performance on this book both children showed that they could identify and use the structure and the language patterns of the book.

They could also:

- extract information from the pictures that was not in the text;
- make connections between their current knowledge and the information in the text;
- "dip" into the book to find information according to their interests and questions;
- read and enjoy a non-fiction text even though they could not read it accurately; and
- understand the relationship between the size of the creatures in the photographs and their actual size.

6.7 DISCUSSION

The six children who were the informants for the reading aspect of this study, clearly demonstrated that they could function as non-fiction readers. They understood the functions of the books they read, they were able to read and interpret the visual information provided in the photographs, diagrams, and they could draw on their own knowledge to relate and connect it to new information. They were also able to use the organisational features to locate and verify information for different

purposes. The children were on the way to becoming effective and proficient readers of non-fiction books - a task which is clearly not beyond the capabilities of these six year olds.

The data provides clear and compelling evidence that these children had begun to deal with the complexities of learning to read non-fiction in the first few years of their schooling. The evidence presented here suggests that there was no developmental barrier which prevented these young children from learning to use non-fiction books. It seems that if children have not begun to develop these skills in the early years of school, the cause lies less in developmental considerations than in the lack of instruction and exposure to books.

Furthermore, there is no support for the notion that these children had to learn to read before they could read-to-learn. The two happened concurrently as children were exposed to a range of appropriate fiction and non-fiction material. Donaldson (1988) supports the idea that these two aspects of children's reading development should go hand in hand.

> "There is, most fortunately, no incompatibility between developing a love of literature, with all the personal enrichment it brings, and developing the ways of handling language that favour clear, sustained rational thought. These can - and should - develop side by side through the school years" (p. 34).

If, as Harste (1986) and many other writers believe, "reading is a single process [which] gets played out differently depending on the setting in which it occurs", then it is quite logical to suggest that these young readers could learn to control the reading process and to strategically "vary their cognitive processes by content and context" (Harste 1990).

Closely related to this argument is the conclusion that these young children did not necessarily prefer fiction over non-fiction, and that therefore it was not a more natural starting place for reading instruction. Once again, the children's behaviour and preferences were strongly influenced by the instructional context and the material made available to them by the teacher. In this research study the teacher provided the children with a variety of appropriate and engaging non-fiction books and the children learned to use them.

The quality of the materials provided is an important factor in the success of the instruction provided. These books which the teacher shared invited children into the realms of non-fiction because they contained information which impacted upon the children in two important ways. Firstly, it allowed the children to confirm their current understandings about some aspects of the topic. That is, they already had some information and could therefore relate what they knew to the books. The recognition of and connection with information in the books presumably helped the children to feel more confident about reading and learning from books.

Secondly, it piqued the children's sense of wonder and amazement as they were introduced to new things. As Donaldson (1988) states, "Human beings have in them an urge to understand", so the books they engage with should satisfy this urge. The drive which sustained the children's involvement in the rigour and complexity of learning to read was fuelled by the satisfactions they gained from the content of the material they read. It seems readers can only answer "yes" to the following question. "Is it worth the risk of failure to try hard to read?", (Paris & Wixson 1987) when what is read offers something to the reader. Paice (1985) warns of the

danger of giving children books that do not contribute to their understanding of the world.

> "I believe that in presenting children with a text that is boring and incomprehensible, we are doing them a great disservice. In fact we are laying the foundations for poor use of reference books later." (p. 48)

> "Bad books are not just useless, they are harmful." (p. 47)

When children are provided with good quality books which engage and satisfy them, they will come to realise, as the children in this study did, that non-fiction books exist to serve them (Paice 1985).

The kinds of reading and research skills which Sue was developing with these young readers should help them to obtain an important "key to the world" (Morris & Stewart-Dore 1984) which can, however, only be learned "by dealing with significant things". (Christie 1988)

6.8 CONCLUSIONS

The first conclusion is young children do not have to learn to read before reading to learn. They can and do learn these simultaneously.

The second is that beginning readers can and do cope with the complex demands of reading non-fiction in the early years of schooling.

The final conclusion is that the materials used for non-fiction reading instruction must engage children and satisfy their need for information. The books must also contain the correct conventions for non-fiction if children are to develop appropriate understandings of non-fiction texts.

CHAPTER 7: CONCLUSIONS AND IMPLICATIONS

The conclusions from the preceding chapters are that:

> Beginning readers can learn to read and write non-fiction texts in the first years of schooling.
>
> Beginning writers can appropriate a variety of features of the non-fiction texts they read and use them to construct their own texts.
>
> The non-fiction texts which beginner readers and writers are exposed to must engage children's interest, satisfy their need for information and provide correct conventions so that children develop appropriate understandings and expectations for non-fiction material.
>
> The techniques of Shared Book Experience can be adapted to teach children how to read (and to write) non-fiction.

The overall conclusion is that there appears to be no real developmental barriers to young children learning how to read and write non-fiction and that they can learn-to-read and read-to-learn simultaneously. Developmental or instructional theories which suggest that children cannot do these things must be seriously questioned.

The insights about what young children learn can contribute to a more adequate model of literacy development in the first years of school that takes into account the fact that children are "far exceeding, in their

productivity and in the scope of their learning, what schools have traditionally expected" (Goodman 1989 p.213).

Implications

Although the research presents findings from one classroom, it does provide a response to Goodman's (1989) question, "What kinds of experience enables readers to read like writers and to learn the conventions of written language to use in their own writing" (p.218). Having access to good quality, engaging materials in a context where children see the skills readers need in genuine use, seem to be experiences which enable children to read like writers. However, the children in this study were not exposed to a full range of non-fiction forms such as argument, or texts organised on alphabetical (e.g. encyclopaedias). We have yet to explore how children will respond to the demand of these sorts of texts in this kind of instructional setting. This appears to be an area where further research would be fruitful.

At present in Australia, there is a "great debate" about the teaching of writing in primary schools. In its simplistic form, the debate pivots around the different ways of conceptualising the interaction between adults and children in the language learning process. These differences are cogently discussed by Gray (1987).

The work of the genrist such as Martin, Rothery, Christie, Hammond, Painter has precipitated a debate about teaching writing in particular, factual genres. The genrists have done a great deal to highlight the fact that little factual writing is done in primary schools and that children have very little access to good models of factual genres. They also make the

point that advantaged students seem to pick up understandings about how factual texts work, but that students who are learning English as a second language or those from economically deprived backgrounds, simply do not learn these things themselves.

Furthermore, they assert that spoken and written language are different and that "anything vaguely approximating the amount of immersion experienced when learning to talk is out of the question. Writing is just too slow" (Eggins, Martin & Wignall cited in Callagan & Rothery 1988).

Strategies have been developed to translate the genrists understandings into a practical form for use in the classroom. Essentially, their "curriculum genre" has three stages:

Stage One: Modelling
Stage Two: Joint construction of a text
Stage Three: Independent construction of a text

Working through these stages is meant to ensure that the features of the genre being modelled are made explicit and that the teacher and children participate in the joint construction of a text based on the model before the children attempt the model themselves.

However, the children's products discussed in this study demonstrate quite clearly that young children, including those from non-English speaking backgrounds and those who are economically deprived, can analyse text features and use them to construct their own text without this kind of explicit instruction.

The critical thing here is that the children in this study all had experience as readers of good non-fiction texts from which they had developed a set of expectations and understandings about texts which they could draw on to construct their own. Callagan & Rothery (1988) suggest that an implicit approach to teaching writing will usually, but not always, work for those children who have had a wide experience of reading and who come from highly literate homes. The genrists recognise the contribution that reading can make but they suggest there is not enough time for an implicit approach to really work.

One explanation may be that until recently young school children have not had sustained and consistent access to good instructional programs and materials aimed at helping them learn to read non-fiction materials. It is possible that given such exposure to non-fiction reading instruction through the techniques of Shared Book Experience from the beginning of schooling, young children will build on this experience and knowledge to become more sophisticated writers and readers of non-fiction that those the genrists researchers have studied so far.

There is no argument that effective readers and writers of non-fiction use explicit understandings about texts, but how they acquire these is an issue that still needs research. The teacher in this research helped the children develop their understandings by both implicit and explicit approaches. By providing children with access to the features of texts through the salience of her demonstrations in Shared Book sessions, she gave them opportunities to write and, on two occasions, she had the children write using the text as a model.

It seems therefore, that effective instruction in writing non-fiction texts is not a simple matter of either implicit or explicit instruction. Rather it depends on how both can be used to support the children's struggle to learn how to use non-fiction effectively.

However, whatever approach is used it needs to respect the children's capacities to learn from appropriate and engaging demonstrations.

APPENDIX I: INTERVIEW QUESTIONS ABOUT THE SCHOOL AND CLASSROOM CONTEXTS

Questions for Sue Hoare and the Principal:

1. How many students in the school?
2. How many teachers on the staff?
3. How do you describe this school?
4. How do you describe the community from which the school population is drawn?
5. What do you think distinguishes this school from others?
6. What kinds of problems do you confront in this school?

Questions for Sue Hoare regarding School Context and Classroom Context:

1. How long have you been teaching?
2. In which schools have you taught?
3. Range of year levels?
4. What is your current teaching situation?
5. How long have you been at Kidman Park Primary School?
6. Is this statement in your program still an accurate statement of your beliefs about teaching?
7. What are your aims for your current Language Arts program?
8. What is your role as a Language Arts teacher?
9. How would you describe this school?
10. What are the physical features of the classroom?
11. What kinds of routines have been set up?
12. How many boys?
13. How many girls?
14. Different cultural groups?

15. Any particular problems which have arisen in this class?

APPENDIX II: TEACHER'S DESCRIPTIONS OF SIX RESEARCH INFORMANTS

Kate

- very confident
- can re-tell stories, choose favourite parts and provide alternative endings
- has a very wide sight vocabulary
- uses a range of word attack skills to decode unfamiliar words
- reads novels as well as shorter picture books
- eager to read
- enjoys listening to stories
- can locate index and contents and use them
- uses dictionary with confidence
- always settles quickly into silent reading times and often reads novels she has borrowed from the library
- she is being encouraged to read a wide variety of books by different authors and to start looking at newspapers
- knows where non-fiction section is in the library
- writes fluently without much hesitation
- varies kinds of writing done e.g. stories, poems, reports
- uses invented spelling and gets most sounds correct
- eager to write
- uses punctuation properly and includes speech between characters
- likes stories to be typed up and made into books
- will work on one piece of writing over a number of days
- has written about book she has read
- has fantastic general knowledge

Alicia

- reads a variety of books
- uses a variety of word attack skills e.g. sounding out, breaking long words into syllables, picture clues. Encouraging her to "read-on"
- knows stories must make sense
- tackles quite complex and long stories (re-reading them)
- good understanding of what she reads
- in silent reading she enjoys looking at atlas and reading names of countries
- sometimes reads other non-fiction books
- writing a variety of texts - poems, tongue-twisters, fiction, factual accounts of what she has done
- most of her pieces can be read by others
- confident to use invented spellings - encouraging her to pay more attention to middle sounds
- stories vary in length
- sometimes innovates on stories read to her
- has made lots of progress in her reading and writing
- has a fantastic general knowledge, is extremely interested and asks questions about why things happen

Karen

- eager to read and enjoys the humour in stories
- gaining in fluency and confidence
- read through series of "Grug" books and wanted more
- tries to sound out unfamiliar words or uses picture clues
- keeps sense of story
- keen borrower of books

- have encouraged her parents to enrol her in the local library
- encouraging her to use a range of work attack skills and to read a wide range of books
- in silent reading, she reads quietly and is reading a variety of books
- writes freely
- uses full stops and capital letters
- writes fiction and non-fiction
- often innovates on books read in class
- uses invented spelling - gets first sound and some vowels right
- eager to read her pieces to others and to have them published
- made a lot of progress since the start of the year, especially in reading

Kevin

- very confident and fluent reader
- good sight-word vocabulary
- tackles unfamiliar words by breaking them into smaller units
- good understanding of what he reads
- enjoys discussing stories and illustrations
- aware of varying print sizes and styles e.g. "BIG" he says word loudly
- can use contents
- has own books which he brings to school to share
- likes looking at atlas and other non-fiction books in silent reading times
- keen to read non-fiction books from the library
- hope to get him involved in reading longer stories from library e.g. novels and perhaps writing book reports

- has a fantastic general knowledge - he explained the rain cycle to class!
- he went to Malaysia at Christmas time
- can use index and contents in some books
- have been really pleased with his improvement in writing - at the start of the year he was writing very short stories and only using words he knew how to spell. Now writes very involved stories or accounts of what he has done
- uses invented spelling and gets most sounds correct
- uses question marks, exclamation marks and speech marks as well as different print styles in his writing
- getting him to use more "book language" when doing his own writing

Nichole

- recognises some basic sight-words
- have made books for her e.g. "I like ...", or "Look at ...." She enjoys reading and illustrating them
- loves to "read" to others. She often makes up the text to match the illustrations
- enjoys humorous illustrations
- can choose favourite part of a story and talk about it to others
- starting to get her to concentrate on the text - she uses first letter clues sometimes
- starting to read for meaning
- parents always read to her at home
- at the start of the year she was writing a series of scribbles with some letters

- helping her to learn letters
- she tries to write sentences such as "I like ..." and tries to make up stories using this sentence pattern
- gets help with certain words but is encouraged to "have a go" - she sounds them out

  e.g. c for cat

  u for umbrella

  t for tree

Karl

- recognised very few sight words at the beginning of the year and didn't really enjoy reading
- starting to become fully aware that stories make sense and to therefore, read for meaning
- can read books he chooses to read
- tries to sound out words, uses picture clues and has been encouraged to break down words into smaller units
- encouraging him to talk about books he reads and to choose favourite parts
- in silent reading times, he reads books from Jelly-Bean Series such as Kangaroo from Woolomaloo
- sometimes he reads "big books"
- writing at the beginning of the year was just a series of letters. Now he's writing stories others can read
- can read to others what he writes
- writes pieces structured on "I went...", and "I like ...."
- only just started to write fiction
- is using "once upon a time" beginning for stories
- has made a lot of progress since the start of the year

APPENDIX III: MYSTERY MONSTERS DICE GAME

Mystery Monster Game

How to play

This is a game for four players. Each player chooses to be one of these:
- a crab
- a spider
- a praying mantis
- a cicada

Players take turns at throwing a die and moving their counter along the game board.

When you land on a space answer the question. If you can answer "yes" you get an extra turn. First to finish wins.

START	1 Do you have five eyes?	2 Do you have ten legs?
5 Did you once live underground?	4 Can you fly?	3 Do you have eight legs?
6 Do you have eight eyes?	7 Can you run sideways?	8 Do you have a beak for sucking?
FINISH	10 Are you deaf?	9 Do you have hooks on your legs?

APPENDIX IV: EXAMPLES OF TRANSCRIPTS AND PROCESSED ACCOUNTS OF INTERVIEWS WITH CHILDREN

Interview: Nichole - Large Marsupials and Small Marsupials

Researcher: *What are marsupials?*

Nichole: *The little ones or the big ones?*

Researcher: *What ever you like?*

Nichole: *Big ones are a bit easy.*

Researcher: *OK!*

Nichole: *When the big marsupials are first born they don't have any fur.*

When they have grown big they normally - um - go around the bushes sometimes looking for shade when it's raining.

Researcher: *What was the word Miss Hoare told us about that?*

Nichole: *A shelter!*

This is a bit like the big marsupial but they have to find a place to hide from all the creatures - all their enemies. Except if they hide in big places where would the little ones hide - in their pouch!

Researcher: *Can you remember the names of some marsupials?*

Nichole: *Kangaroos - that's one of the big marsupials. Um - I can't remember - oh no! Um - except we saw all of the animals and I think one was called - I did kangaroo, didn't I? Have I done the Red Kangaroo?*

Researcher: *No.*

Nichole: *There's Kangaroo and Red Kangaroo. I forgot the next one.*

Researcher: *Can you tell me which book you liked the best of these two?* [Large Marsupials:Small Marsupials]

Nichole: *Big Marsupials - now which one do I like - I'm just trying to think. I'll choose a part that I like the best. Ah! This*

Tasmanian Devil - that a bit I like - I forgot to bring my toy one.

Researcher: *Why do you like?*

Nichole: *It's nice and fluffy, its got white bits and inside of its ears its got pink - I can see. His nose is a bit pink - see there and there.*

Well - er - there's one I liked about this animal too - it's got a furry tail [quoll]. *Its got furry feet and um, it's got a black nose - because the* [quoll] *got a pink one.*

Researcher: *Can you remember what nocturnal means?*

Nichole: *Um - no! I'll just look* [went down the contents] *think it might be there - page 12. No. Is it on number 4* [Flipped over pages].

Nichole: *Do you know where you can find Tasmanian Devils?*

Researcher: *No.*

Nichole: *Up in Tasmania!*

What This Tells Me

1. Nichole was aware that they'd looked at 2 categories of marsupials - small and large.
2. She remembered:
   a) that when marsupials are born they don't have any fur
   b) the red kangaroo is a marsupial
   c) the term and the concept of shelter

3. She was confident in picking up the book to look for the part she liked best. She kept up a running commentary as she did so.

4. Nichole made good use of the picture information in the book. She discussed what the Tasmanian Devil and the Quoll looked like by referring to the photographs of each. She noticed differences between the two animals such as the colour of their noses.

5. She remembered the Tasmanian Devil when she saw it in the book and said that she had a toy one at home.

6. Although she couldn't remember what the word nocturnal meant, she decided it might be on page 12, then said No and then decided on page 4 and flipped the page over. It wasn't there but she sat and scanned the page for a while.

7. She then asked me if I knew where to find the Tasmanian Devils and her reply was in Tasmania. I interpreted this as a kind of joke because of the way she did it.

Inferences

Considering that Nichole could recognise very few words in this text and the complexity of its layout, she demonstrated a remarkable confidence in using the book.

She understood the function of the contents and attempted to use it.

She was quite confident about some of the information in this book as she remembered it easily.

She was confident also about using the visual/pictorial information to explore and build up her own information base.

Nichole also seemed to have an awareness here of her own processes - as she was monitoring her own behaviour (metacognitive). Examples of this are:

- the big ones [marsupials] are a bit easy
- the big ones or the little ones? [her response when asked what she remembers about marsupials]
- I did kangaroo didn't I?
- Have I done the Red Kangaroo?
- Now which one do I like?

Interview: Alicia: Book of Animal Records

Researcher: *What did you write today?*

Alicia: [Read paper she wrote/read colours for contents and then re-read it]

Researcher: *Can you find contents?*

Why are the contents in different colours?

Alicia: *If there was one colour and the numbers are the same colour you wouldn't know where it went.*

Researcher: *So what do the colours do?*

Alicia: *Tell you where the page you want to go to.*

Researcher: *Do the colours do that?*

Alicia: *No.*

Researcher: *So what do the colours do?*

Why are these all the same colour?

Alicia: *Because its a group.*

Researcher: *What is it a group of?*

Alicia: *The same colour.*

Researcher: *It's not a group of colours. Let's read them.*

[Read 1 and 2 hesitated over tallest - I told her; hesitated over fastest - then read]

Researcher: *What's it a group of then?*

Alicia: *Animals.*

Researcher: *What's this green colour a group of?*

Alicia: *Birds.* [Then went on to read the rest of them]

Where can you find them - don't know what that means - [started to turn pages over to find entry]. *"Sooty Tern" belongs to the green.* [Went back - grabbed a chunk of pages to go back to the beginning - looked at entry. Put

hand on page 4] *That belongs to the brown because that's marsupials.*

[Turned to index' discussed the chart of the sizes of the animals compared to a person.] *The man would be as big as that* [salt-water crocodile]. [Ran fingers along page] *The man's taller, salt-water crocodile weighs more than the person.*

Alicia: *And there's another - I can't find it - a map somewhere here.* [Turned pages]

Researcher: *What does the map show?*

Alicia: *Where you find - I'm just looking for it now.* [Turned back to front of book.]

Researcher: *Go back to the contents. Can we use it to find out?*

Alicia: *Yes. But there's no number.*

Researcher: *What does the map show us again?*

Alicia: *Where you can find animals.*

Researcher: *Is there anything that says "where you can find animals"?*

Alicia: *It only says where can we find them*

Researcher: *Can we look at it to check*

What page?

Alicia: *Page 41.*

Researcher: *Check that again - 14 or 41*

Alicia: *Blank page, why has that got nothing?*

Researcher: *Is that what you wanted?*

Alicia: *No! Its another one. Is there another map in here? It was just a map of Australia.* [Went back] - *Yes here - Australia.*

All this blue is the lake. [Pointed to blue] *That's where you get clear water to drink.*

Dragon, what's a dragon?

Dragon flies or what?

Researcher: *Its actually a Komodo Dragon.*

Alicia: *What page is it?*

Researcher: *How could you find out?*

Alicia: *Where it says Komodo Dragon.*

[Looked at contents] doesn't say that [Just turned pages].

Researcher: *If it's not in contents is there anywhere else that will tell you where things are?*

Alicia: [Turned to back page] *I think this is it.*

Researcher: *What's it called?*

Alicia: *The index.*

Says Komodo here - page 12. [Turned back to middle of book, turned pages and got to 12. Pointed to picture] *Here's a Komodo Dragon - it's a lizard, I thought it was a dragon.*

Researcher: *Why do they call it that?*

Alicia: *Face is like a dragon and its skin is kind of .... It has four claws at the front, I don't know about the back and two people would weigh as much as it.*

*

Description

Alicia had written that she liked the contents best from the book because it had colours. She read her written statements and said colour for contents but then re-read and self corrected it. She could find the contents in the book when asked. When asked why the contents were different colours,

she said "If there was one colour and the numbers are the same colour, you wouldn't know where it went".

She was asked then what do the colours do, she replied that they tell you where the page you want to go is.

When asked if the colours do that she said, "no" and the question as to what the colours do was repeated. There was a long pause and a different question was asked about why these [pointing to a group] were all the same colour. She said that it was a group and replied that it was a group of the same colour when asked what it was a group of.

She was then told that it was not a group of colours and was invited to read along the first two entries in one colour group. She hesitated over the word tallest and it was given to her and hesitated over fastest but got that herself.

When asked what it was a group of, she was able to reply that they were animals.

She correctly replied "that birds", when asked what the green colour was a group of and then she went on to read each of the green entries. She read the entry for another group that said where can you find them - and commented that she didn't know what it means so started to turn the pages over to find the page in the book.

As she did so she stopped when she saw the Sooty Tern, she read it and said that it belongs to the green. She then took a chunk of pages and turned back to the beginning, looked at the contents. She then put her hand on page 4 and indicated that it belongs to the brown because it's marsupials.

She turned to the index and then to the comparative chart and talked about the animals which were taller than persons. She said that the "man would be as big as that [salt-water crocodile]" and ran her finger along the

page between the two and said, "the man is taller", and then said that the salt-water crocodile weighs more than a person.
Alicia said that there's another ... stopped in mid sentence, said that she couldn't find it and then added that there was a map somewhere here and proceeded to turn the pages.
When asked what the map shows, Alicia said, "Where you find ... I'm just looking for it now" and then she turned to the front of the book. It was suggested that she turn to the contents and was asked if she could use it to find out. She replied that she could, but that there was no number.

The question was asked about what the map shows and she replied that it shows where you can find the animals. When asked if there was anything in the contents that said where you can find animals, she located entry and said that it only said where we can find them. She was asked whether we could look at that in the book to check, she agreed that we could and found the page which she read as 41. She was asked to check whether it read 41 or 14.

After page 14 there was a blank page as the map was a double spread folded over. She asked why the blank page had nothing on it, but was asked if that was the page she wanted. She said that it wasn't, it was another one and said "Is there another map in here? It was just a map of Australia". She then discovered the map under the blank page, said that all the blue on the page is the lake, pointed to the blue and commented that that's where you get clear water to drink. She then came across the word dragon on the map and said "Dragon? What's a dragon? Dragon-flies or what?".

She was told that it actually said Komodo Dragon and then she asked which page it was on, but the question was handed back to her by asking her how she could find out. She thought she could look in the contents for where it said Komodo Dragon, but when she did this she discovered that this entry was not there. She then look puzzled and started just turning over the pages.

She was then asked to think about, if it's not in the contents, was there anywhere else that would tell her where things are. She then turned to the back page to the index and indicated she thought she could use it. She knew what it was called when asked and found the Komodo Dragon entry and read out page 12. Alicia turned to the middle of the book and quickly found page 12. She pointed to the picture and said, "Here's a Komodo Dragon - it's a lizard and I thought it was a dragon".

When asked why they might call it that Alicia suggested that it's face was like a dragon and it skin was kind of too. She noticed it had 4 claws at the front but said she didn't know about the back - [it wasn't visible in the picture]. She added that 2 people would weigh as much as it.

What This Tells Me

. Alicia had noticed and remembered the colours of the contents and the discussions about the groups of colours, but her comments indicated that she thought the colours indicated the pages you needed. In a sense this is true as the pages are colour coded as well.

- She could follow the reasoning behind the questions which asked her to work out the significance of the colours as indicators of a group of like animals.
- She seemed to be trying to measure the relativities between animals on the comparative chart by running her finger along in a line from one to the other. For instance, she thought that the man would be as tall as the salt-water crocodile but when she ran her finger along she didn't get a straight line and said the man was taller, but she did add that the salt-water crocodile was heavier.
- She seemed to catch on to the relationship between the colours in the contents and the animals when she had her discoveries about the Sooty Tern and the marsupials.
- She had book handling skills such as turning over pages in chunks rather than one at a time. Her estimation of where pages would be were reasonably accurate.
- She understood the function of the contents, index, map and the comparative chart.
- She could use the index effectively which required:
  - identifying index
  - locating entry for Komodo Dragon
  - remembering what the work looked like or at least some salient features
  - reading page numbers
  - locating item in book
- She understood the function of the blue section of the map as indicating water but had some inappropriate concepts in this instance, about the meaning e.g. lakes and fresh drinking water.

She seems to be using information she already has, but applying it inappropriately to this situation.

- Could read some of text independently e.g. contents, map label, index.
- Was able to modify her concept of dragon when confronted with new information and speculate on the similarities between her concept of a dragon and the lizard.
- Understood the function and the particular meaning of the weight relationship between the dragon and people as represented in a diagram at the bottom of the page.

Interview: Karl - Prehistoric Giants

Researcher: *What did you write about?*

Karl: *The back.*

Researcher: *The back of what?*

Karl: *The bat.*

Researcher: *What's the bat's name?*

Karl: *Um.*

Researcher: *What does this say here?*

Karl: *The bat.*

Researcher: *Was that in the book we looked at this morning?*

Karl: *Yes the little book* [Frieze]

Researcher: *Could you get it to show me?*

Karl: *This one here* [Pterosaur].

Researcher: *Can you remember anything about the ones in the book this morning?*

Karl: *No.*

Researcher: *Nothing at all? Why don't you get the book and show me.*

Karl: *Which one?*

Researcher: *The one we look at this morning. Which one did you like?*

Karl: [Turned to page 7. The Giant Python.]

Researcher: *What is it called?*

Karl: *Um. I don't know.*

Researcher: *What sort of animal is it?*

Karl: *Snake.*

Researcher: *It's called the Giant Python. Can you remember how long it is?*

Karl: [Measured with his fingers] - *That big.*

Researcher: *Can you remember how it kills its food?*

Karl: *By squeezing it.*

Researcher: *How do you know that?*

Karl: *You can see it.*

Researcher: *What do we call this* [table list]?

Karl: *Table.*

Researcher: *What's it for?*

Description

Karl had chosen to write about the Pterosaur as one of the prehistoric giants that he found interesting. Karl described it as the "bat" and could not remember its name nor read it. This prehistoric giant was actually on the frieze which accompanies the Prehistoric Giants Book. Karl could identify which animals it was from those on the frieze by using the picture cues. He couldn't read any of the text.

Karl couldn't remember any of the creatures which they had seen in the Prehistoric Giants book that morning. When he actually had the book in front of him he indicated that the Giant Python was one that they had looked at but he couldn't remember what it was called or read the name. He knew it was a snake, he could use the scale diagram to show how long it was but only in relation to the picture - e.g. he used the gap between his thumb and forefinger to measure the size of it on the scale diagram.

When asked about how it killed its food, he said "by squeezing it". He knew this information from the drawing in the book.

Karl remembered that the check-list on the page was called a table and that it was there to tell you about the things the animals do but he couldn't recall any of what this information was. Even with prompting, he couldn't point out where on the chart it showed the animal's length.

What This Tells Me

. Karl remembered the name and the function of the tables which appear on each page.

. He could use the pictures as a source of information about the creature.

. He knew that the scale diagram was about the animals size but he couldn't actually make the translations necessary to say how long it was from reading the diagram.

. He was more interested in the frieze creatures than those in the book.

. He had labelled the Pterosaur as a bat, probably by making connections between similarities between the bat and the Pterosaur e.g. the winged shape.

Inferences

. Karl can use some form of usual information e.g. pictures to gather information

. He understands the use/function of scale diagrams and tables even though he can't "read" them.

- He is making connections between what he knows and new information e.g. the bat.
- He needed to have the book there to be able to talk about information

APPENDIX V: EXAMPLE OF INITIAL CATEGORIZATION OF SOME OF THE TEACHER'S QUESTIONS

Learning about Content

How would they know that giants were found in that part of Australia?

What do you think it would feel like?

What do you notice about the skin? Can you give me some describing words?

What are marsupials?

What are reptiles?

What is the difference between kangaroos and wallabies?

What do you notice about the tongue?

What is an animal that sucks up nectar?

How may legs does the spider have?

Does anyone know what any of these are?

Did you like the book?

Why do you think they have said Mystery Monsters instead of just Monsters?

Who has an idea about why this might be?

What is another creature we know that has eight legs?

What do you think the hooks are for?

Why did you think it was a mosquito Mathew?

How many wings does the cicada have?

What animal is this?

Why are the weevils a brown colour?

What is a life-cycle?

When do you normally see moths?

What season are we in now?

Why do you think it is this colour?

Nichole, what do caterpillars eat?

Why do you think it keeps getting rid of its old skin?

Why do you think it got fat?

What do you think a pupa might be?

This is the outside [pupa], what is on the inside?

Why do you think the spot on the moth's wings scare birds away?

What is another creature that you know that lays eggs?

This one takes how many weeks?

Why do you think they would call a butterfly a cabbage white?

When does the caterpillar lose its 10 eyes?

What colour were the moth's eggs?

Do you think they will all turn into butterflies?

Can you think of anything else that might want to eat the leaf or the eggs?

When the caterpillar hatches out, what do you think it might start eating?

Why does the butterfly lay eggs on the underside of the leaf?

Is the caterpillar's shell hard or soft?

What do you think it might be living on while it is inside the egg?

They are four days old - how long does it take them to hatch?

Is the snail natural or is it something "man" made?

Is pest spray natural or is it "man" made?

What is another animal you know that has a skeleton on the outside?

Are enemies natural or "man" made?

If a caterpillar has eight legs on each side, how many are there altogether?

If there are nine spiracles on one side, how many altogether?

It is only going to be 13°C today, will you see any butterflies today?

Why wouldn't we find them outside mating today?

Why do you think she wants to be sure its a cabbage leaf?

What can you remember about marsupials?

What did you look at yesterday in the book about marsupials?

What do we know about marsupials?

What did we notice when we used a magnifying glass last week?

What were we talking about yesterday?

What did we find out about caterpillars?

Where did it lay its eggs?

What happened after that?

What did it do then?

Why did they lose their skins?

Why did the author know it was going to be a butterfly?

What happened next after the cocoon?

How did it get out?

What was special about this moth?

What was different about its feelers?

Which has six legs - the moth or the caterpillar?

What was special about the wings of this moth?

Who can remember what the last big book we looked at was?

What was in that book?

What about the cocoon?

Why did they call it a life-cycle?

Can you remember how long it took for the eggs to hatch?

Have you noticed that all these creatures are found in different places?

What do you already know about the echidna?

Why would it have to be able to hunt in trees?

What animal do you know that has sharp claws?

Have you ever see your cat stalking something, does it make a noise?

Where did we learn about marsupials?

What is another animal you know that has a trunk?

Why do you think they say "may have a trunk"?

If it did not attack other animals, what did it eat?

Which do you think were its strongest legs? Why were they strong?

Why do you think the Aborigines hunted it?

If this butterfly was the Mystery Monster - what clues would you give?

How many players can we have playing this game?

Why is it this colour and not red?

Why would it want to be camouflaged?

What does the crab use these claws for?

Where are your bones? Where are the crabs bones?

Fiona, how did you know it was a star-fish?

Language and Print Conventions

What does shelter mean?

What does "food is scarce" mean?

What is a giant?

What is an amphibian? Does anyone know? How can we find out?

What is another word for "larger"?

What does "stalk its prey" mean?

Can you think of another word for "frightening"?

What is a "clue"?

Instead of saying "how to play", what is one word we could use instead?

What is a diary?

What do you think "emerges" means?

What do you think "Mystery Fact" might mean?

What could we say instead of "How to read this book"?

What is another word for midday? Another word that starts with "n"?

What does "nocturnal" mean?

Can you remember what extinct means?

Can you remember what an animal's habitat is?

What do we call it when two things are the same?

Why are these big letters?

What is this number doing here at the bottom of the page?

Wombats and Wallabies - what do they start with?

What does W.A. stand for?

How can I check to make sure I say it the right way?

Why did they put a ? mark after living relative?

Why do you think they have a capital A & C?

Can you find smaller words in the word answer?

Why is there a full stop here?

Can you find a small word in "grasshopper"?

What can you tell me about the words Mystery and Monsters?

What letter do they start with?

If I stop the word here, what does it say? [My/stery], but you do not say my stery.

Then it is short for what?

I'm is short for which two words?

I'll is short for?

What do you notice about the word knobbly?

What makes the "ee" sound in each of these words?

What other words have the "ee" sound written like this?

Who thinks they can tell me which word is the longest here?

What can you tell me about changed, expected and decided? If I say decided, what does it sound like on the end?

I can see another "ee" word on this page - can you?

Why have they got a question mark?

What do we call it when we take a photograph and make it bigger?

When I "enlarge" something, what do I do?

Features of Text - Organisation and Visual

What do we call this page? [title]

What do you notice about the contents?

Who is the author of this book?

Is this a photo or a drawing?

Do you think this photo is the real size of the wallabies?

Are people really that size?

What do we call these things? [table]

What will we find in the "Further Reading" section?

What does illustration mean?

What is this page? [Contents]

Why do you think the contents are in different colours?

Is this a photo or a drawing?

What do you notice about the heading?

This is the index which tells me ...?

What order are the words in?

Do you think this is a picture or a photograph?

Do you think this has been magnified?

What differences can you see between the two books? [Caterpillar Diary and Prehistoric Giants]

Which one do you think was easier to read?

Who wrote the book?

What does the Contents tell us?

What is funny about this Contents? [weeks missing]

Why do you think they have missed some weeks out?

What page will I find the word "legs" on? [looking at Index]

Who can tell me what page I will find something about "ears", about smell? [looking at index]

Where is the contents? At the back or the front of the book?

Do you know what we will find in the "Glossary"?

Why is there a skin diver in this picture?

What can you see in the photo?

What is the difference between the kangaroos in these two photos?

What do you notice about this animal?

What do you notice about the Dunnart's footprints?

Compared to the Bandicoots?

Which one has more toes?

What else do you notice?

What do you notice about this book? [author and first page the same as another book]

What can you tell me about the cover?

Is this a photograph or a drawing? Why do you think it might be a drawing?

What do you notice about its legs?

Can you tell me where the front end of the crab is in this photograph?

What do you notice about its eye?

Who can find the mouth of the star-fish in the picture?

Where do you think the caterpillar is?

Is that the size of the eggs?

What are the caterpillars on?

What are all these lines on the leaves?

What can you tell me about the wings in this photo?

How many fingers does it have?

What do you think about all of these pictures? [enlarged]

What is this called? [heading]

What part of the crab do you think they are showing here?

Why do you think this part of the picture is sharp and clear and this part is blurred?

What part of the spider do you think this is?

What part of the butterfly is this?

What part of the spider is this?

How many eyes does the spider have?

What do you think these are? [antennae]

What do you think has happened to this part of the leaf in the photograph?

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